

حمل الآن

مجاناً وحصرياً

امتحانات رقم (1)

الترم الاول



Model Exam 1



1 (A) Complete the following sentence :

The camouflage strategy of bull shark which helps it to sneak up on its prey is called

(B) Give reasons for :

1. Dolphins can hear all kinds of sound.

.....

2. Glass is from transparent materials.

.....

3. When your toy car crashes into a wall, it will stop moving.

.....

4. Airbags in cars are very important.

.....

2 (A) Write the scientific term for the following :

A system that helps a person to realize and avoid danger. (.....)

(B) What happens if ... ?

1. A truck and a small car move at the same speed. (according to kinetic energy)

.....

2. You operate a washing machine. (according to the change of energy)

.....

3. Your hand touches the spines of a barbary fig plant.

.....

4. The diaphragm moves upward during exhalation.

.....

3 (A) Put (✓) or (X) :

1. During landing of the roller coaster, the kinetic energy is converted into potential energy. ()

2. One of the structural adaptation of kapok tree is that it has large, wide roots called buttress roots. ()

(B)

1. Compare between : Balanced and unbalanced forces.

Point of comparison	Balanced force	Unbalanced force
Definition :		

2. If two cars move for 10 seconds, the first car covers 50 meters and the second car covers 80 meters, find the speed of each car and which car is faster ?

.....

.....

4 (A) Choose the correct answer :

1. The organ that processes the information collected through the sense of sight is the

- a. spinal cord. b. nerve. c. brain. d. eye.

2. The force that tries to stop an object moving on a surface is called

- a. gravity. b. friction. c. push. d. pull.

(B) What is the function of ... ?

1. Stomach :

.....

2. Gills :

.....

3. The spinal cord :

.....

Model Exam 2



1 (A) Put (✓) or (X) :

Fish need clean water to survive.

()

(B) Mention one example of :

1. A structural adaptation in fennec fox :

2. A tool used to help construction workers knock down walls of building :

3. A behavioral adaptation in acacia tree :

4. A form of kinetic energy :

2 (A) Write the scientific term for the following :

A form of energy that is stored in an object due to its position at a certain height from Earth's surface.

(.....)

(B) Give reasons for :

1. The hind legs of the jerboa are long.

2. Using the seatbelt in the car.

3. If you let a pen out of your hand, it falls to the ground.

4. Water lilies have wide floating leaves.

3 (A) Complete the following sentences using the words between brackets :

(inhalation – forward – backward – exhalation)

1. When the car stops suddenly, passengers move

2. The diaphragm rises up during the process of

(B) Define each of the following :

1. Reflexes :

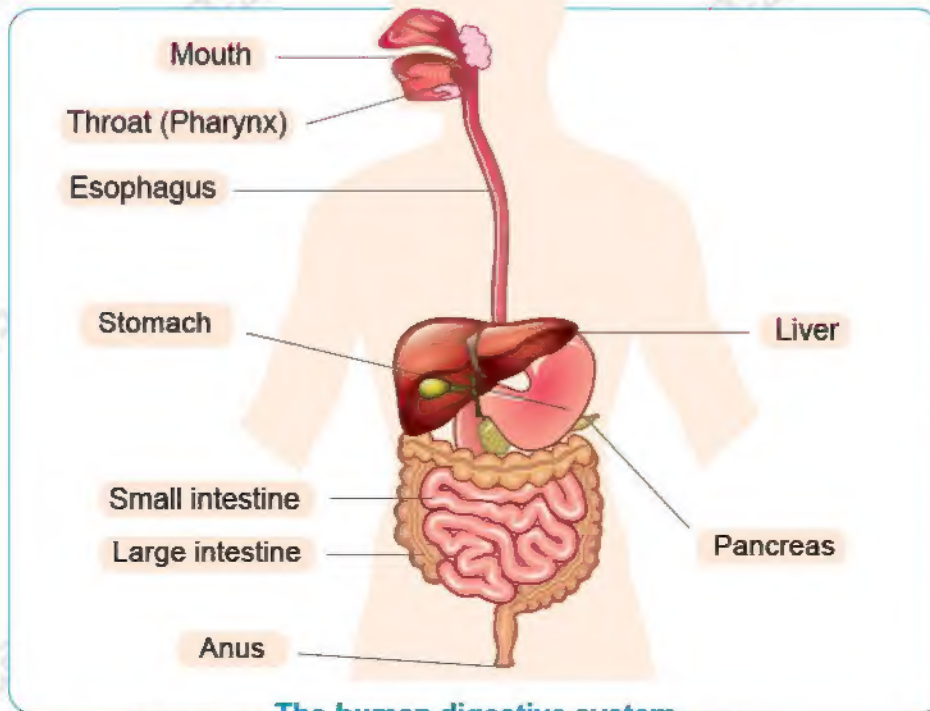
2. Energy :

3. Speed :

4 (A) Correct the underlined words :

1. Airbags are made up of thick wooden material. (.....)
2. Scout ants are responsible for alarming the colony in danger. (.....)

(B) 1. The following figure represents the digestive system, answer the following questions :



The human digestive system

a. What is the organ that pushes food from the mouth into the esophagus?

b. What is the function of the small intestine?

2. Find the speed of a runner, if you know that he covers 400 meters in 80 seconds :

Model Exam 3



1 (A) Choose the correct answer :

Light travels in lines in the form of waves.

- a. curved b. zigzag c. straight d. circular

(B) What happens if ... ?

1. You transfer a book from the ground to a higher shelf. (according to its potential energy)

.....

2. The speed of a car increases. (according to its kinetic energy)

.....

3. Pollution level increases in the natural habitat of amphibians.

.....

4. The spinal cord in the nervous system get harmed.

.....

2 (A) Cross out the odd word :

Glass – Book – Water – Air.

(.....)

(B) Give reasons for :

1. Construction workers use a wrecking ball in their work.

.....

2. Panther chameleon has V-shaped feet and a long tail.

.....

3. Bats can catch insects in the dark.

.....

4. Electric lamp produces different forms of energy.

.....

3 (A) Complete the following sentences using the words between brackets :

(behavioral – kinetic – structural – light)

1. The long ears of the fennec fox to keep the body cool are considered adaptation.

2. When an object falls from top to bottom, the potential energy changes into energy.

(B) Define each of the following :

1. Ecosystem :
2. Motion :
3. Kinetic energy :

4 (A) Correct the underlined words :

1. A car is moving at a speed of 80 km/h. and after 3 hours it has travelled a distance of 380 km. (.....)
2. The form of energy that can be seen is thermal energy. (.....)

(B)

1. Compare between : Structural adaptation and behavioral adaptation.

Points of comparison	Structural adaptation	Behavioral adaptation
Definition :		
Example :		

2. Why are modern cars equipped with air bags?

.....

.....

Model Exam 4



- 1 (A) The armadillo resorts to hiding in burrows during the day to avoid extreme hot.

What is the type of adaptation of this animal?

(B) Give reasons for :

1. When a stone is thrown upwards, its potential energy increases.
2. A car consumes less fuel than that consumed by a bus to move at the same speed.
3. The importance of juices of liver and pancreas.
4. The songs of humpback whales have high-pitched sounds during winter months.

- 2 (A) Put (✓) or (X) :

The parachutes that are supplied to the truck help the shockwave to slow down and stop.

()

(B) Compare between :

1.

Point of comparison	Transparent objects	Opaque objects
Definition :		

2.

Point of comparison	Speed	Mass
The effect of them during collision :		

- 3 (A) Write the scientific term of each of the following :

1. It is a force that causes an object to move a distance. ()
2. A gas presents in air and water, and is very important for breathing process. ()

(B) 1. Mention one function or use for the following :

- a. Echolocation in dolphin :
- b. The brain :

2. What are the factors that the kinetic energy depends on ?

.....

4 (A) Choose the correct answer :

1. The stored energy in a battery of a flashlight changes into energy, when it is turned on.

- a. chemical b. sound c. light d. potential

2. Your sensation of hot weather depends on sensory receptors in the

- a. eyes. b. nose. c. ears. d. skin.

(B)

1. How do penguin's feet adapt to the cold climate ?

.....

.....

2. What is the role of the diaphragm in the process of respiration?

.....

.....

3. If the masses of all children in the opposite figure are equal.

Which of them has more potential energy?

.....



Model Exam 5



1 (A) Write the scientific term for the following :

A group of different animals that look for their preys at night. (.....)

(B) What happens if ...?

1. Light falls on a rough surface.

.....

2. Balanced force affect a stopped object.

.....

3. The acacia leaves are not guarded by sharp spines.

.....

4. Food burns inside the human body. (according to the change of energy)

.....

2 (A) Put (✓) or (X) :

The engine of the truck is much stronger than the engine of the plane. ()

(B) Give one example of each of the following :

1. A bird lives in Antarctica :

2. A form of potential energy :

3. A type of communication used in both animals and human :

.....

4. A safety equipment used during collision of cars :

.....

3 (A) Complete the following sentences using the words between brackets :

(friction – reflection – echolocation – gravity)

1. The property of helps to see yourself in the mirror.

2. The force that pulls objects down towards the center of the Earth is the force of

(B) What is meant by ... ?

1. Friction force :

.....

2. Reaction time :

.....

3. Adaptation :

.....

4 (A) Cross out the odd word :

1. Mouth – Lungs – Stomach – Large intestine. (.....)
2. Sound energy – Light energy – Electrical energy – Thermal energy. (.....)

(B)

1. Compare between :

Acacia tree and kapok tree (in terms of : shape of leaves - importance of this shape).

Points of comparison	Acacia tree	Kapok tree
Shape of leaves :		
Importance of this shape :		

2. A train travels from Cairo to Alexandria in a distance of 200 kilometers in 2 hours. Find its speed.

.....
.....

Model Exam 1

1 (A) countershading.

- (B) 1. Because they have sharp senses of hearing, so they can hear all kinds of sound.
 2. Because glass allows light to pass through.
 3. Because the wall applies a force to the car with the same amount of the force that pushes the car toward the wall.
 4. Because the airbags slow the speed of the driver moving forward and they absorb the energy of the passengers during collision.

2 (A) Nervous system.

- (B) 1. The kinetic energy of the truck is more than that of the small car.
 2. The electrical energy changes into kinetic and sound energies.
 3. The hand will move quickly away in less than one second.
 4. The size of chest decreases, the air rich in carbon dioxide gas comes out of the lungs.

3 (A) 1. (x) 2. (✓)

(B) 1.

Balanced force	Unbalanced force
It means that the forces that act on the object are equal.	It means that the forces that act on the object are unequal.

2. – The speed of the first car = $\frac{\text{Distance}}{\text{Time}}$
 $= \frac{50}{10} = 5 \text{ m/sec.}$

– The speed of the second car

$= \frac{\text{Distance}}{\text{Time}} = \frac{80}{10} = 8 \text{ m/sec.}$

– The second car is faster than the first car.

4 (A) 1. c 2. b

- (B) 1. It mixes food with the stomach acid and digestive juices (enzymes) found in it to change the food into a soupy liquid.
 2. Fish use them to perform the function of breathing by extracting oxygen from water and release carbon dioxide.
 3. It carries messages from the brain to the body parts and vice versa.

Model Exam 2

1 (A) (✓)

- (B) 1. It has a tan-colored coat (sandy-colored fur).
 2. Wrecking ball.
 3. It produces a poison when an animal begins eating its leaves.
 4. Sound energy.

2 (A) Potential energy.

- (B) 1. To enable it to jump along distance.
 2. To keep the driver's body and also the passenger from moving forward when the car stops suddenly.
 3. Due to the pulling force of the gravity that pulls the pen down toward the Earth.
 4. To absorb a large amount of sunlight.

3 (A) 1. forward. 2. exhalation.

- (B) 1. They are messages sent by the nervous system that are often so fast that you cannot realize them.
 2. It is the ability to do work or cause change.
 3. It is the distance that an object travels in a certain amount of time.

4 (A) 1. thin nylon 2. Soldier

- (B) 1. a. Throat (Pharynx).
 b - Breaking down of food into nutrients by the help of the juices of liver and pancreas.
 - Absorbing nutrients through tiny blood vessels to all body parts.

2. The speed of the runner = $\frac{\text{Distance}}{\text{Time}}$
 $= \frac{400}{80} = 5 \text{ m/sec.}$

Model Exam 3

1 (A) c

- (B) 1. The potential energy of the book will increase.
 2. The kinetic energy of the car increases.
 3. The number of amphibians will decrease.
 4. Messages cannot be transmitted between brain and body parts, so nervous system couldn't do its function correctly.

2 (A) Book (All items are transparent materials except book which is an opaque material).

- (B) 1. Because it helps them to knock down walls or parts of building.
 2. To hold tightly the branches of trees.
 3. Because they depend on echolocation to find insects at night.
 4. Because it produces light and thermal energies.

3 (A) 1. structural 2. kinetic

- (B) 1. It is an area in which living organisms and nonliving things interact with each other.
 2. It is any change in the position of an object relative to a fixed starting point.
 3. It is the energy of an object due to its motion.

4 (A) 1. 240 km 2. light

(B) 1.

Points of comparison	Structural adaptation	Behavioral adaptation
Definition :	It is a change in the body structure of a living organism to help it survive.	It is a change in the behaviors or acts of a living organism to help it survive.
Example :	The blood vessels in the penguin's feet.	Desert lizard looks for shade area during hot sunny day.

2. Because they slow the speed of the driver's motion forward and absorb the energy of the passengers on collision.

Model Exam 4

1 (A) Behavioral adaptation.

- (B) 1. Because its height from the Earth's surface increases.
 2. Because the car has a smaller mass than the bus, so it needs a smaller engine to be operated.

3. Because they help in breaking down food into nutrients.

4. Because high-pitched sounds travel better through cold water.

2 (A) (✓)

(B) 1.

Point of comparison	Transparent objects	Opaque objects
Definition :	They are objects that allow light to pass through.	They are objects that don't allow light to pass through.

2.

Point of comparison	Speed	Mass
The effect of them during collision :	By increasing the speed of the object, the energy that transfers during collision will increase.	By increasing the mass of the object, the energy that transfers during collision will increase.

3 (A) 1. Work 2. Oxygen gas.

(B) 1. a. Dolphin uses it to determine the location of other living organisms and objects under the surface of water.

b. The main control center in the body.

2. Mass and speed.

4 (A) 1. c 2. d

(B) 1. Blood vessels that carry warm blood from the body weave around the blood vessels that carry cold blood from its feet.

This leads to warming the blood vessels of the penguin's feet to survive in cold climate.

2. It contracts and moves downward during inhalation to increase the size of chest, while it relaxes and moves upward during exhalation to decrease the size of chest.
3. Child number (1).

Model Exam 5

1 (A) Nocturnal animals.

- (B) 1. Light rays are reflected in different directions.
2. The object will not move.
 3. Animals can eat these leaves easily.
 4. The stored chemical energy of food changes into kinetic energy so human can carry out different activities.

2 (A) (x).

- (B) 1. Penguin.
2. Chemical potential energy.
 3. Displaying light.
 4. Airbag.

3 (A) 1. reflection 2. gravity.

- (B) 1. It is the force that is exerted when objects rub against each other.
2. It is the time taken by the body of a living organism to respond and react to different information from the environment.
 3. It is a characteristic that helps living organisms to survive and reproduce in the ecosystem in which they live.

- #### 4 (A) 1. Lungs (All items are among organs of digestive system, except lungs that are from organs of respiratory system).
2. Light energy (All items are from energies that can't be seen, except light energy).

(B) 1.

Points of comparison	Acacia tree	Kapok tree
Shape of leaves :	Tiny leaves have sharp spines.	Hand-shaped leaves with narrow parts
Importance of this shape :	Hold in water and prevent animals from eating these leaves.	Allow wind to move gently through the leaves without cutting them.

2. The speed of train = $\frac{\text{Distance}}{\text{Time}}$

$$= \frac{200}{2} = 100 \text{ km/hr.}$$

1

Cairo Governorate

El Salam Educational Zone

1 (A) Choose the correct answer :

1. The mouth is an organ of system.
 - a. nervous
 - b. digestive
 - c. circulatory
2. Bats can locate their preys using
 - a. smell.
 - b. sight.
 - c. echolocation.
3. Ants communicate with each other using
 - a. sight.
 - b. smell.
 - c. touch.

(B) Look at the following pictures then determine the type of force (push – pull) :



1.



2.

2 (A) Put (✓) or (X) :

From the examples of behavioral adaptation in panther chameleon is puffing up its body in danger.

()

(B) Write the scientific term :

1. A type of foxes has a thick white fur. (.....)
2. The ability to do work. (.....)

3 (A) Cross out the odd word :

Brain – Nerves – Nose – Spinal cord. (.....)

(B) 1. Classify the following objects into opaque objects and transparent objects :

(Wood – Air – Water – Metal)

Opaque objects	Transparent objects
.....	
.....	

2. Calculate the speed of a car that travels a distance of 20 km every 2 hours.

.....

2

Cairo Governorate

Rod El Farag Educational Zone

1 (A) Complete the following sentences using these words :

(spinal cord – structural – stomach – gills)

1. Fish breathe in water by
2. From the components of the nervous system
3. The presence of fats under the animal's skin is a adaptation.

(B) Give a reason for the following :

The seatbelt is one of the safety equipment in a car.

.....

.....

2 (A) Put (✓) or (X) :

Humans use codes to transmit information.

()

(B) What happens if ...?

1. Light falls on a smooth and shiny surface.

.....

2. Balanced forces act on a rest body.

.....

3 (A) Choose the correct answer :

..... is one of the light sources.

a. The moon

b. The eye

c. The Sun

d. The mirror

(B) 1. Compare between the senses of hearing and sight (according to the organ responsible for each of them) :

Sense of hearing	Sense of sight
.....	
.....	

2. A train covers a distance of 600 km in 6 hours. Calculate the speed of the train.

The speed of the train = km/hour.

3

Cairo Governorate

Heliopolis Educational Zone

1 (A) Choose the correct answer :

1. When you jump high, the force affecting you must be
 a. created. b. destroyed. c. unbalanced. d. balanced.
2. In the rainforests, we can find the
 a. amphibians and fennec fox. b. panther chameleon and amphibians.
 c. arctic fox and fennec fox. d. panther chameleon and arctic fox.

3. The force that tries to stop an object moving on a surface is called
 a. friction. b. gravity. c. pulling. d. magnetic.

(B) Look at the following figures then answer :

1. The surface in figure (a) is
 and the light rays reflect in direction.

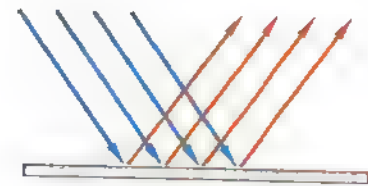


Figure (a)

2. The surface in figure (b) is
 and the light rays reflect in directions.

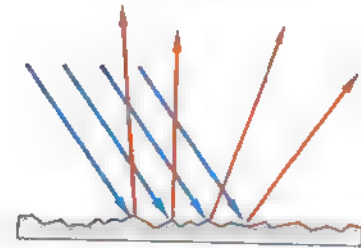


Figure (b)

2 (A) Put (✓) or (X) :

Bats have the ability to change echo into vibrations as the cane of a blind person. ()

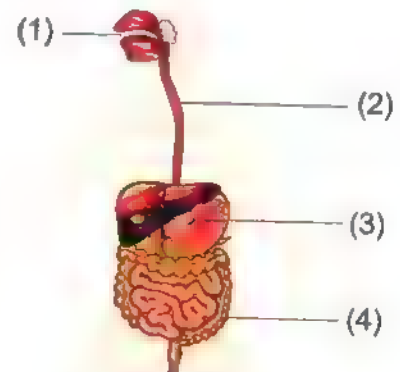
(B) Give a reason for the following :

Electric lamp produces different forms of energy.

(C) Look at the figure then answer :

1. Label the figure :

- (1) (2)
 (3) (4)



2. Complete the following :

- a. The absorbs water from the undigested food.
 b. The absorbs the nutrients through blood vessels.

3 (A) Correct the underlined word :

The spinal cord is the main control center in the body. (.....)

(B) Write the scientific term :

Change in the body structure of a living organism to survive. (.....)

(C) If a bus travels 100 meters in 20 seconds, calculate the speed of the bus.

4

Cairo Governorate

Central Cairo Educational Zone

1 (A) Put (✓) or (X) :

1. Migration of some birds is a form of behavioral adaptation. ()
2. The nervous system works independently of the five senses. ()
3. Cardboard is considered a transparent material. ()

(B) What happens if ...?

Balanced forces act on a stationary object.

.....

.....

2 (A) Choose the correct answer :

The system that provides the human body with oxygen and removes carbon dioxide is system.

- a. digestive b. respiratory c. circulatory d. nervous

(B) 1. How do bats communicate with each other?

2. What is the type of energy produced in a roller coaster when it descends?
-

3 (A) Complete the following sentence :

Facial expressions are a type of

(B) 1. Explain why : Animals do not eat the leaves of acacia trees.

2. Calculate the speed of a car that covers a distance of 500 kilometers in 5 hours.
-

5

Cairo Governorate

Mokattam Educational Zone

1 (A) Put (✓) or (X) :

1. Exhaled air contains more oxygen gas. ()
2. The buttress roots of the kapok tree grow upward. ()
3. The spinal cord is the main control center of the human body. ()

(B) Give a reason for the following :

The speed of the car decreases when the brakes are applied.

.....

.....

2 (A) Cross out the odd word :

Stomach – Small intestine – Trachea – Esophagus.

(.....)

(B) Complete the following sentences:

1. Echolocation helps dolphins to determine of the prey.
2. The electric fan converts the electrical energy to energy.

3 (A) Choose the correct answer :

The digestive system starts with

- a. mouth. b. nose. c. anus.

(B) Write the scientific term :

1. The energy of an object due to its motion. (.....)
2. Living organisms communicate with each other through the sense of smell. (.....)

6 Giza Governorate 6th October Educational Zone

1 (A) Choose the correct answer :

1. trees grow in salt water.
a. Kapok b. Mangrove c. Palm
2. Some messages sent by the nervous system so fast that you cannot realize them known as messages.
a. heart b. brain c. reflexes
3. Producing poison in acacia tree is considered as adaptation.
a. behavioral b. structural c. physiological

(B) Calculate the speed of a car that travels a distance of 80 km every two hours.

.....
.....

2 (A) Write what the following statement means :

Pattern that has a meaning.

(.....)

(B) What happens if ...?

1. The body is affected by balanced forces.

.....

2. Fireflies don't emit flashes.

.....

3 (A) Complete the following sentence :

The property that enables bats to locate their prey is

(B) Give reasons for :

1. The speed of the jet plane is greater than the speed of the truck.

2. Humpback whales sing under water.

7

Giza Governorate

Kerdasa Educational Zone

1 (A) Choose the correct answer :

1. When light falls on a mirror, it is

- a. reflected. b. refracted. c. scattered. d. absorbed.

2. cover(s) the body of the arctic fox.

- a. Heavy hair b. Heavy skin c. Thick fur d. Many feathers

3. Animals that become active at night are called animals.

- a. diurnal b. nocturnal c. extinct d. endangered

(B) Write one example of :

Potential energy:

2 (A) Cross out the odd word :

Flashlight – Mirror – The moon.

(.....)

(B) What happens if ...?

1. You switch on an electric lamp.

(according to the change of energy)

2. The hearing sense of humpback whales becomes weak.

3 (A) Correct the underlined word :

Fish use gills to take carbon dioxide gas from water.

(.....)

(B) Give reasons for :

1. You can't see an object placed behind a wood.

Because it doesn't allow

2. The Shockwave truck is faster than the normal truck.

Because it has jet engines.

8

Giza Governorate

Science Inspectorate

1 (A) Choose the correct answer :

- From the structural adaptation of water lily plant is that it has ...
a. long roots. b. needle leaves. c. wide leaves.
- Reading and writing are common types of communication in world.
a. humans b. animals c. plants
- The of light helps to see yourself in the mirror.
a. reflection b. absorption c. density

(B) What happens if ... ?

- Your hand touches the spines of plant.
.....
.....

- You pull an object.
.....
.....

2 (A) Cross out the odd word :

Small intestine – Stomach – Trachea – Large intestine. (.....)

(B) Write two examples of :

- Forms of kinetic energy.
.....
.....

- Safety equipment in the car.
.....
.....

3 (A) Correct the underlined word :

Humpback whales produce high-pitched sound in summer. (.....)

(B) Give reasons for :

- Some animals make camouflage.
To from the enemies.
- The book which is put on a table has energy.
Because it stores

9

Giza Governorate

Dokki Educational Zone

1 (A) Choose the correct answer :

- The firefly beetle uses to communicate.
a. smell b. light c. echo
- The animal that has the ability to turn its head in all directions is the
a. owl. b. snake. c. dolphin.
- Fish use to breathe in water.
a. tail b. eye c. gills

(B) Write an example of :

Safety equipment used during collision of cars.

.....

2 (A) Cross out the odd word :

Small intestine – Stomach – Trachea – Large intestine.

(.....)

(B) What happens if ...?

- The amount of food in the ants colony decreases.
The ants send messages to scout ants to alert them to find the food.
- You operate an electric fan.
The energy changes into energy.

3 (A) Put (✓) or (X) :

The moon is a source of light.

()

(B) Give a reason for the following :

- Parachutes are used in the Shockwave truck.
To help their movement.
- The penguin's body has a thick layer of fat and dense feathers.
To keep its body

10

Alexandria Governorate

El-Montazah Educational Zone

1 (A) Choose the correct answer :

- When an object is in motion, this means that its changes.
a. color b. shape c. size d. position
- The tan-colored fur of fennec fox protects it from
a. wind. b. rains. c. hot weather. d. cold weather.
- When you move something towards you, this represents
a. pushing force . b. light energy. c. pulling force. d. sound energy.

(B) Give a reason for the following :

Owls can hunt during the night.

.....

2 (A) Put (✓) or (X) :

Seatbelt is one of safety equipment in cars.

()

(B) Write the scientific term :

1. The type of energy that is affected by the height of objects. (.....)
2. Trees that grow in amazon rainforest. (.....)

3 (A) Cross out the odd word :

Penguin – Polar bear – Snake – Arctic fox.

(.....)

(B) Complete the following statements :

1. The dolphin has sharp sense of
2. Fish breathe gas which dissolves in water.

11 Alexandria Governorate

East Educational Zone

1 (A) Choose the correct answer :

1. Ants use the sense to communicate with each other.
 a. speaking b. smell c. sing d. hear
2. Spinal cord is an important organ in the system.
 a. digestive b. respiratory c. nervous d. circulatory
3. Fish use to take oxygen that is dissolved in water.
 a. lungs b. skin c. nose d. gills

(B) What happens when ...?

Balanced forces affect an object in rest.

.....

2 (A) Put (✓) or (X) :

The special cane of blind people depends on echo sound property.

()

(B) Write the scientific term :

1. A force pulls objects downward. (.....)
2. The time taken by the body to react to a danger. (.....)

- 3 (A) Complete the following sentence using one of the words below :**
 (desert – salt water – both fresh and salt water)

Bull shark adapted to live in

(B) Mention one use of :

1. Wrecking ball.

2. Brain.

12 Alexandria Governorate

West Educational Zone

- 1 (A) Complete the following sentences using the words between brackets :**

- Buttress roots in Kapok trees is considered adaptation.
 (structural – behavioral)
- Both desert lizards and panther chameleons are a type of
 (amphibians – reptiles)
- Sound is transmitted in the form of
 (columns – waves)

(B) Calculate the speed of a train traveling a distance of 800 km in 8 hours.

Car speed = Distance ÷ Time = ÷ = km/h.

- 2 (A) Put (✓) or (X) :**

The sense organs are responsible for collecting information from the external environment and transmitting it to the brain. ()

(B) Write the scientific term :

- A very heavy steel ball used to break down the walls of buildings. (.....)
- Small air sacs surrounded by blood vessels, from which oxygen is transferred to the blood. (.....)

- 3 (A) Choose the correct answer from the following :**

The following creatures are characterized by a strong sense of sight, except

a. cats.

b. dogs.

c. bats.

d. owls.

(B) What happens if ...?

1. Undigestive food reaches the large intestine.

2. Turn on the electric fan in the house.

13**Qalyoubia Governorate****Banha Educational Zone****1 (A) Choose the correct answer :**

- Adaptation helps living organisms to
 a. survive and reproduce. b. extinct.
 c. die. d. be sick.
- Echolocation helps dolphins identify... of their preys.
 a. color b. location c. smell d. taste
- The process of vision occurs as a result of of light.
 a. scattering b. reflection c. absorption d. refraction

(B) Write the scientific term of the following :

Force that pulls objects down toward the Earth. (.....)

2 (A) Correct the underlined word :

Oxygen enters the lungs during the process of exhalation. (.....)

(B) 1. Give a reason for the following :

Owl turns its head in all directions.

.....

2. What happens if ... ?

A roller coaster stops. (according to its kinetic energy)

.....

3 (A) Put (✓) or (X) :

Fireflies use the sense of hearing to communicate. ()

(B) Mention one function of the following :

1. The teeth in digestion process.

.....

2. The parachutes in Shockwave truck.

.....

14**Menofia Governorate****Shebeen El-Koum Educational Zone****1 (A) Put (✓) or (X) :**

- Bats are from nocturnal animals. ()
- The diaphragm contracts downward during exhalation. ()
- Glass is considered from opaque objects. ()

(B) What happens if ... ?

Unbalanced forces affect a stopped object.

.....

2 (A) Complete the following statement using the words between brackets :

Ants communicate with each other through their sense of (sight – smell)

(B) Mention the importance of each of the following :

1. Thick fur in polar bear :
2. Seatbelt in the car :

3 (A) Write the scientific term :

It is a pattern that has meaning. (.....)

(B) 1. Mention one function of brain.

2. Write two forms of potential energy :

1.
2.

15

Sharkia Governorate

Abo Kbeer Educational Zone

1 (A) Put (✓) or (X) :

1. Arctic fox lives in tundra, while fennec fox lives in hot desert. ()
2. The large ear of jerboa is an example of structural adaptation. ()
3. Echolocation is a type of communication between humans. ()

(B) Give reasons for :

1. The Shockwave truck is faster than the normal truck.

2. A bird stops on a tree has an energy.

2 (A) Choose the correct answer :

Dolphins depend on their sharp sense of to get food.

- a. sight b. smell c. hearing

(B) What happens ...?

1. If the polar bear has thin fur.

2. To the energy of the roller coaster when it moves down the hill.

3. If a car runs out of fuel on a flat road.

4. If the diaphragm moves upward during exhalation.

3 (A) Correct the underlined word :

Humpback whales produce low-pitched sounds in winter. (.....)

(B) Give one example of each of the following :

1. Structural adaptation for mangrove trees.

2. Forms of kinetic energy.

3. Air pollutants.

4. Pushing force.

16 Gharbia Governorate

Gharbia Educational Zone

1 (A) Choose the correct answer :

- The food moves into the stomach through the
a. esophagus. b. trachea. c. small intestine. d. tongue.
- The animal that depends on echolocation to catch its preys is
a. owl. b. snake. c. bat. d. cat.
- Light travels in lines in the form of waves.
a. circular b. curved c. zigzag d. straight

(B) Give a reasons for the following :

Shockwave truck is faster than normal truck.

2 (A) Put (✓) or (x) :

Fish use gills to take the dissolved oxygen in water. ()

(B) 1. Give a reason for the following :

Fireflies emit flash light.

2. Classify the following forms of energy into potential and kinetic energies :

(Chemical – Electrical – Thermal – Gravitational)

Potential energy:

Kinetic energy:

3 (A) Cross out the odd word :

Brain – Heart – Nerves – Spinal cord.

(.....)

(B) Give only one example of each of the following :

1. Behavioral adaptation in bull shark.

2. Safety equipment in cars.

17

Dakahlia Governorate

Science Inspectorate

1 (A) Correct the underline word :

Exhaled air contains oxygen.

(.....)

(B) Answer the following questions :

1. Determine the type of adaptation in each of the following :

a. Thick and white fur in the polar bear.

b. Fennec fox lives in burrows.

2. What is meant by ...?

Energy :

3. Which of the following consumes less fuel a truck or a small car ?

2 (A) Choose the correct answer from the following :

1. passes the food from pharynx to stomach.

a. Esophagus

b. Stomach

c. Trachea

d. Alveoli

2. All of the following are components of the nervous system, except

a. spinal cord.

b. heart.

c. nerves.

d. brain.

3. One of the adaptations that helps the animal protects itself from enemies is

a. camouflage.

b. extinction.

c. migration.

d. reproduction.

(B) If the two cars moved at the same time for 20 seconds car (A) covered a distance of 100 meters, while car (B) covered a distance of 300 meters. Which of the two cars has a higher speed?



3 (A) Put (✓) or (X) :

Bats use their sense of smell to avoid dangers.

()

(B) 1. The opposite figure shows the acacia tree.

Explain one of the features of its leaves.

**2. Compare between transparent and opaque objects :**

Point of comparison	Transparent objects	Opaque objects
One example		

(C) 1. Classify the following energies into kinetic and potential :

(Light – Chemical – Thermal – Gravitational)

Potential energy	Kinetic energy
.....	

2. Give one function of the airbag.**18 Damietta Governorate****Science Inspectorate****1 (A) Complete the following sentences using the words below :**

(gravity – structural – friction – behavioral – speed – thermal energy)

1. Panting in fennec fox is considered a adaptation in living organisms.
2. helps in cooking food.
3. The force that arises between the surfaces of two contacted bodies is

(B) Give reasons for :

1. The arctic fox has a thick fur.

2. The Shockwave truck is faster than a normal truck.

2 (A) Cross out the odd word :

Taste – Smell – Hearing – Eyes – Touch.

(.....)

(B) Write the scientific term :

- The form of energy that increases when the object's speed increases. (.....)
- The muscle that contracts during inhalation and expands during exhalation. (.....)
- The force that you make to move an object away from you. (.....)
- A safety equipment used to prevent car passengers from moving forward when the car stops suddenly. (.....)

3 (A) Choose the correct answer :

A train covers a distance 600 km in a time of 6 hours, its speed =

- a. 3600 km/hr. b. 100 km/hr. c. 600 km/hr. d. 100 m/sec.

(B) Explain the energy transformation for the following :

The device	Energy used	Energy produced
1. Door bell		
2. Television (TV)		
3. Electric fan		
4. Spring powered toy		

19 Kaf El-Sheikh Governorate**Science Inspectorate****1 (A) Choose the correct answer :**

- All the following organisms are adapted to live in arctic regions, except
a. arctic fox. b. polar bear. c. pine tree. d. fennec fox.
- The speed of a car travels 200 meters in 5 seconds is
a. 40 km/h. b. 1000 m/sec. c. 40 m/sec. d. 50 km/h.
- When a roller coaster moves down on a ramp, its decreases.
a. kinetic energy b. potential energy c. speed d. mass

(B) Give a reason for the following :

Parachutes are used in Shockwave trucks and rockets.

.....

2 (A) Put (✓) or (X) :

When the car suddenly stops, the passengers move forward. ()

(B) Write the scientific term :

- Winged beetles that use light to communicate with each other. (.....)
- It is the force that pulls objects down toward the Earth. (.....)

3 (A) Cross out the odd word :

Rock – Wood – Air – Aluminum foil.

(.....)

(B) Complete the following sentences :

1. The diaphragm relaxes during process.
2. The spinal cord belongs to the system.

20 Behind Governorate**Science Inspectorate****1 (A) Choose the correct answer :**

1. Light can pass through
a. wood. b. glass. c. carton.
2. Speed of a car that covers 150 km in 3 hours is km/hr.
a. 50 b. 100 c. 25
3. Humpback whales communicate through
a. songs. b. smelling. c. light.

(B) What is the scientific explanation ... ?

Objects falls down towards the center of the Earth.

.....

2 (A) Complete the following sentence :

The stored energy inside the object is

(B) What happens if ... ?

1. There is a danger nearby the ants colony.

.....

2. Balanced forces affect on a stopped object.

.....

3 (A) Write the scientific term :

It is a force that exerted between two objects that rub each other. (.....)

(B) What is the importance of each of the following :

1. Diaphragm muscle.

.....

2. Airbag.

.....

21**Ismailia Governorate****Science Inspectorate****1 (A) Choose the correct answer :**

- Which of the following materials is the best in reflecting light ?
 a. Wood. b. Clothes. c. Mirror. d. Carton.
- Animals that become active at night are called animals.
 a. reptiles b. beetles c. nocturnal d. fish
- Penguin's feet don't freeze due to the effect of their
 a. blood vessels. b. fats. c. fur. d. feathers.

(B) Give one example of :

A transparent material.

.....

2 (A) Write the scientific term :

The system that the brain and nerves are parts of it. (.....)

(B) Give reasons for :

1. The Shockwave truck is faster than the normal truck.

.....

2. Moon is not considered as a source of light.

.....

3 (A) Put (✓) or (X) :

Thumps-up or thumps-down is considered a code. ()

(B) Mention :

1. The type of potential energy in the battery.

.....

2. The type of adaptation in panther chameleon that has V-shaped feet.

.....

22**Suez Governorate****Science Inspectorate****1 (A) Choose the correct answer :**

- The thick fur of the polar bear belongs to adaptation.
 a. only structural b. only behavioral
 c. only functional d. structural and behavioral
- Which of the following organs is working for touching objects?
 a. Nose. b. Eye. c. Skin. d. Tongue.

3. uses echolocation.

a. Snake

b. Jerboa

c. Dolphin

d. Owl

(B) Write the scientific term :

Force between the car tires and the road which decreases its speed.

(.....)

2 (A) Put (✓) or (X) :

Nocturnal animals have wide eyes than human.

()

(B) Correct the underline words :

1. The smaller the mass of a car, the large fuel it consumes.

(.....)

2. Fish use gills to take oxygen gas from air.

(.....)

3 (A) Complete the following sentence using one of the words below :

(Transparent objects – Opaque objects)

..... don't allow the light to pass through.

(B) Mention two examples of each of the following:

1. Organs of digestive system ;

..... and

2. Energies :

..... and

23 Beni Suef Governorate

Science Inspectorate

1 (A) Choose the correct answer :

1. The presence of thick white fur is an adaptation in

a. starred agama lizard .

b. polar bear.

c. fennec fox.

d. forest bear.

2. All the following are organs of the digestive system, except

a. mouth.

b. stomach.

c. lungs.

d. small intestine.

3. Dolphins depend on their sense of to get food.

a. sight

b. taste

c. smell

d. hearing

(B) Give reasons for :

1. Water lilies have wide floating leaves.

.....

2. A bird on a tree has an energy.

.....

2 (A) Correct the underlined words :

1. If the mass of an object increases, its kinetic energy decreases. (... ..)
2. Opaque objects include water, glass and air. (.....)
3. The moon is one of light sources in the sky. (.....)
4. The behavioral adaptation is a change in the body structure of a living organism to survive. (.....)

(B) What happens when ...?

A roller coaster moves from up to down. (according to the change in its energy).

3 (A) Write the scientific term :

1. It is the ability to do work or cause a change. (... ..)
2. A type of foxes that changes its fur color between winter and summer season. (.....)
3. The main control center in the body. (.....)

(B) Complete the following sentences :

1. is a push or pull that is applied to an object causes it to change its position.
2. In the electric bell, energy changes into energy.

24 Minia Governorate

Bani Mazar Educational zone

1 (A) Match column (A) with column (B):

(A)	(B)
1. Blind person's cane	a. a group of nerves connected directly to the brain.
2. Spinal cord	b. potential energy.
3. Chemical energy	c. emits vibrations upon detecting an obstacle.

1.

2.

3.

(B) What happens when ...?

Light falls on the object of a smooth surface.

2 (A) Put (✓) or (X) :

Friction force acts in the opposite direction of motion.

()

(B) What is meant by ...?

Code :

(C) What are the factors that the kinetic energy depends on ?

3 (A) Choose the correct answer from the following choices :

Humpback whales communicate with each other through
(singing – dancing – flashing)

(B) Give a reason for the following :

Acacia tree roots grow deep downward.

(C) Calculate the speed of a bicycle that travels 200 meters in 50 seconds.

25 Matrouh Governorate

Matrouh Educational zone

1 (A) Put (✓) or (X) for each of the following:

1. Small intestine from the important organs in the respiratory system. ()
2. Firefly beetles communicate by the sense of smell. ()
3. Brain is the main control center in the human body. ()

(B) What happens if ... ?

The speed of object increases. (according to the kinetic energy)

2 (A) Choose the correct answer :

All of the following are forms of kinetic energy, except

- a. sound. b. light. c. food. d. electricity.

(B) Complete the following sentences :

1. Panting in fennec fox is considered as adaptation, while long ears is considered as adaptation.
2. We can identify the colors by using sense, while we can differentiate between smooth and rough things by sense.

3 (A) Write the scientific term :

A force that you make to move an objects away from you. (.....)

(B) Give reasons for :

1. The moon appears bright although it is not source of light.

2. Electric lamp produces different types of energy.

Final Examinations of Some Governorates

Cairo Governorate

1 El Salam Educational Zone

1 (A) 1. b 2. c 3. b

(B) 1. Pull
2. Push

2 (A) (✓)

(B) 1. Arctic fox. 2. Energy.

3 (A) Nose (all items are organs of the nervous system except nose is an organ of respiratory system).

(B) 1. Opaque objects:

Wood – Metal

Transparent objects:

Air – Water

$$2. \text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$= \frac{20}{2} = 10 \text{ km/hr.}$$

2 Rod El Farag Educational Zone

1 (A) 1. gills.

2. spinal cord.

3. structural

(B) To keep the driver's body and also the passengers from moving forward when the car stops suddenly.

2 (A) (✓)

(B) 1. Light rays are reflected in one direction.
2. The body will not move.

3 (A) 1. c

(B) 1. Hearing : The ear
Sight : The eye

$$2. \frac{\text{Distance}}{\text{Time}} = \frac{600}{6} = 100$$

3 Heliopolis Educational Zone

1 (A) 1. c 2. b 3. a

(B) 1. smooth – one
2. rough – different

2 (A) (✗)

(B) Because it produces light and thermal energies.

(C) 1. (1) Mouth.

(2) Esophagus.

(3) Stomach.

(4) Large intestine.

2. a. large intestine

b. small intestine

3 (A) brain

(B) Structural adaptation.

$$(C) \text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$= \frac{100}{20} = 5 \text{ m/sec.}$$

4 Central Cairo Educational Zone

1 (A) 1. (✓) 2. (✗) 3. (✗)

(B) The object will not move.

2 (A) b

(B) 1. Bat makes a high-pitched sound that hits and reflects back to it in the form of echo, when it listens for the echo, it knows that there is something nearby.

2. Kinetic energy.

3 (A) code.

(B) 1. Because acacia tree produces a poison when an animal begins eating its leaves to make the leaves taste very bad.

$$\begin{aligned} 2. \text{ Speed} &= \frac{\text{Distance}}{\text{Time}} \\ &= \frac{500}{5} = 100 \text{ Km/hr.} \end{aligned}$$

5 Mokattam Educational Zone

1 (A) 1. (✗) 2. (✓) 3. (✗)

(B) Due to the friction force between the car tires and the road that acts in the opposite direction of the car movement.

2 (A) Trachea (all items are organs of the digestive system except trachea is an organ of the respiratory system).

(B) 1. location
2. kinetic

3 (A) a

(B) 1. Kinetic energy.
2. Ants.

Giza Governorate

6 6th October Educational Zone

1 (A) 1. b 2. c 3. a

$$\begin{aligned} (B) \text{ Speed} &= \frac{\text{Distance}}{\text{Time}} \\ &= \frac{80}{2} = 40 \text{ km/hr.} \end{aligned}$$

2 (A) 1. Code.

(B) 1. The body will not move.
2. They cannot communicate with each other.

3 (A) echolocation.

(B) 1. Because the engines on the jet plane are more powerful than the engine in a truck.
2. To communicate with each other.

7 Kerdasa Educational Zone

1 (A) 1. a 2. c 3. b

(B) A ball that is lifted up away from the Earth's surface.

2 (A) Flashlight (all items reflect light except flashlight is a source of light).

(B) 1. Electric energy changes into light and thermal energies.
2. They cannot communicate with each other easily.

3 (A) oxygen

(B) 1. light to pass through.
2. three

8 Science Inspectorate

1 (A) 1. c 2. a 3. a

(B) 1. The hand will move quickly away in less than one second.
2. The object becomes closer to me.

2 (A) Trachea (all items are organs of the digestive system except trachea is an organ of the respiratory system).

(B) 1. Electric energy – Thermal energy.
2. Seatbelts – Airbags.

3 (A) low

(B) 1. hide.
2. potential energy.

9 Dokki Educational Zone

1 (A) 1. b 2. a 3. c

(B) Seatbelts.

2 (A) Trachea (all items are organs of the digestive system except trachea is an organ of the respiratory system).

(B) 1. nurse – smelly
2. electrical – kinetic

3 (A) (x)

(B) 1. stopping.
2. warm.

Alexandria Governorate

10 El-Montazah Educational Zone

1 (A) 1. d 2. c 3. c

(B) Because they have very sharp sight and hearing senses.

2 (A) (✓)

(B) 1. Potential energy.
2. Kapok trees.

3 (A) Snake (all items are animals live in polar regions except snake lives in deserts).

(B) 1. hearing. 2. oxygen

11 East Educational Zone

- 1** (A) 1. b 2. c 3. d
(B) The object will not move.

- 2** (A) (✓)
(B) 1. Gravity.
2. Reaction time.

- 3** (A) both fresh and salt water.
(B) 1. It is used to collide with walls of a building.
2. It is the main control center in the body.

12 West Educational Zone

- 1** (A) 1. structural
2. reptiles.
3. waves.
(B) 800 – 8 – 100

- 2** (A) (✓)
(B) 1. Wrecking ball.
2. Alveoli.

- 3** (A) c
(B) 1. Large intestine absorbs water from the undigested materials, so they become solid waste materials that leave the body through the anus.
2. The electrical energy changes into kinetic energy.

Qalyoubia Governorate

13 Banha Educational Zone

- 1** (A) 1. a 2. b 3. b
(B) Gravity.

- 2** (A) inhalation
(B) 1. To search for preys everywhere.
2. Its kinetic energy becomes zero.

- 3** (A) (✗)
(B) 1. They crush food during chewing.
2. They help slow down the Shockwave quickly.

Menofia Governorate

14 Shebeen El-Koum Edu. Zone

- 1** (A) 1. (✓) 2. (✗) 3. (✗)
(B) The object will move toward the greater force.

- 2** (A) smell.
(B) 1. Keeping its body warm in the cold region.
2. Keeping the driver and also the passengers from moving forward when the car stops suddenly.

3 (A) Code.

- (B) 1. It is the main control center in the body.
2. Gravitational – Chemical.

Sharkia Governorate

15 **Abo Kbeer Educational Zone**

1 (A) 1. (✓) 2. (✓) 3. (✗)

- (B) 1. Because the Shockwave truck has three jet engines.
2. Because the bird is found at a height from the Earth's surface, so it has potential energy.

2 (A) c

- (B) 1. It cannot keep its body warm in the cold region.
2. Potential energy changes into kinetic energy.
3. Its speed decreases gradually until it stops.
4. The size of chest decreases, the air rich in carbon dioxide comes out of the lungs.

3 (A) summer

- (B) 1. Long strong roots.
2. Light energy.
3. Car exhausts.
4. Kicking a ball.

Gharbia Governorate

16 **Gharbia Educational Zone**

1 (A) 1. a 2. c 3. d

- (B) Because the Shockwave truck has three jet engines.

2 (A) (✓)

- (B) 1. To communicate with each other.
2. Potential energy :
Gravitational – Chemical
Kinetic energy :
Electrical – Thermal

3 (A) Heart (all items are organs of the nervous system except small heart is an organ of the circulatory system).

- (B) 1. It eats different types of food.
2. Seatbelts.

Dakahlia Governorate

17 **Science Inspectorate**

1 (A) carbon dioxide

- (B) 1. a. Structural adaptation.
b. Behavioral adaptation.
2. It is the ability to do work or cause a change.
3. Small car.

2 (A) 1. a 2. b 3. a

- (B) Car (B), because it covers a greater distance in the same time.

3 (A) (x)

(B) 1. Leaves are tiny and they grow on the top of the tree.

2. Transparent objects: Air.
Opaque objects: Wood.

(C) 1. Potential energy:
Gravitational – Chemical.

Kinetic energy:

Light – Thermal

2. It slows the speed of the driver's motion forward.

Damietta Governorate

18 Science Inspectorate

1 (A) 1. behavioral.

2. Thermal energy.

3. friction.

(B) 1. To keep its body warm in extreme cold climate.

2. Because the Shockwave truck has three jet engines.

2 (A) Eyes (all items are senses except eyes are sensory organs).

(B) 1. Kinetic energy.

2. Diaphragm.

3. Push.

4. Seatbelts.

3 (A) b

(B)

The device	Energy used	Energy produced
1. Door bell :	Electrical	Sound
2. Television (TV) :	Electrical	Sound and light
3. Electric fan :	Electrical	Kinetic
4. Spring :	Potential	Kinetic and sound

Kafr El-Sheikh Governorate

19 Science Inspectorate

1 (A) 1. d 2. c 3. b

(B) To slow down the Shockwave trucks and rockets quickly.

2 (A) (✓) .

(B) 1. Fireflies. 2. Gravity.

3 (A) Air (all items are opaque objects except air is a transparent object).

(B) 1. exhalation 2. nervous

Behira Governorate

20 Science Inspectorate

1 (A) 1. b 2. a 3. a

(B) Due to the pulling force of the gravity.

2 (A) potential energy.

- (B) 1. Soldier ants use smelly messages to communicate with each other.
2. The object will not move.

3 (A) Friction force.

- (B) 1. It contracts during inhalation to increase the size of chest, while it relaxes during exhalation to decrease the size of chest.
2. It slows the speed of the driver's motion forward.

Ismailia Governorate

21 Science Inspectorate

1 (A) 1. c 2. c 3. a

(B) Glass

2 (A) Nervous system.

- (B) 1. Because the Shockwave truck has three jet engines.
2. Because it does not emit light, but reflects sunlight.

3 (A) (✓)

- (B) 1. Chemical energy.
2. Structural adaptation.

Suez Governorate

22 Science Inspectorate

1 (A) 1. a 2. c 3. c

(B) Friction force.

2 (A) (✓)

- (B) 1. less
2. water

3 (A) Opaque objects

- (B) 1. Mouth – stomach.
2. Chemical – thermal.

Beni Suef Governorate

23 Science Inspectorate

1 (A) 1. b 2. c 3. d

- (B) 1. To absorb a large amount of sunlight.
2. Because the bird is found at a height from the Earth's surface, so it has potential energy.

2 (A) 1. increases
2. Transparent
3. The Sun
4. structural

- (B) Potential energy changes into kinetic energy.

- 3 (A) 1. Energy.
2. Arctic fox.
3. The brain.

- (B) 1. Force
2. electrical – sound

Minia Governorate

24 Bani Mazar Educational Zone

- 1 (A) 1. c 2. a 3. b

- (B) Light rays will reflect in one direction.

- 2 (A) (✓)

- (B) It is a pattern that has meaning.

- (C) Mass and speed of an object.

- 3 (A) singing.

- (B) To search for water below the soil surface.

- (C) $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$
 $= \frac{200}{50} = 4 \text{ m/sec.}$

Matrouh Governorate

25 Matrouh Educational Zone

- 1 (A) 1. (x) 2. (x) 3. (✓)

- (B) Kinetic energy will increase.

- 2 (A) c

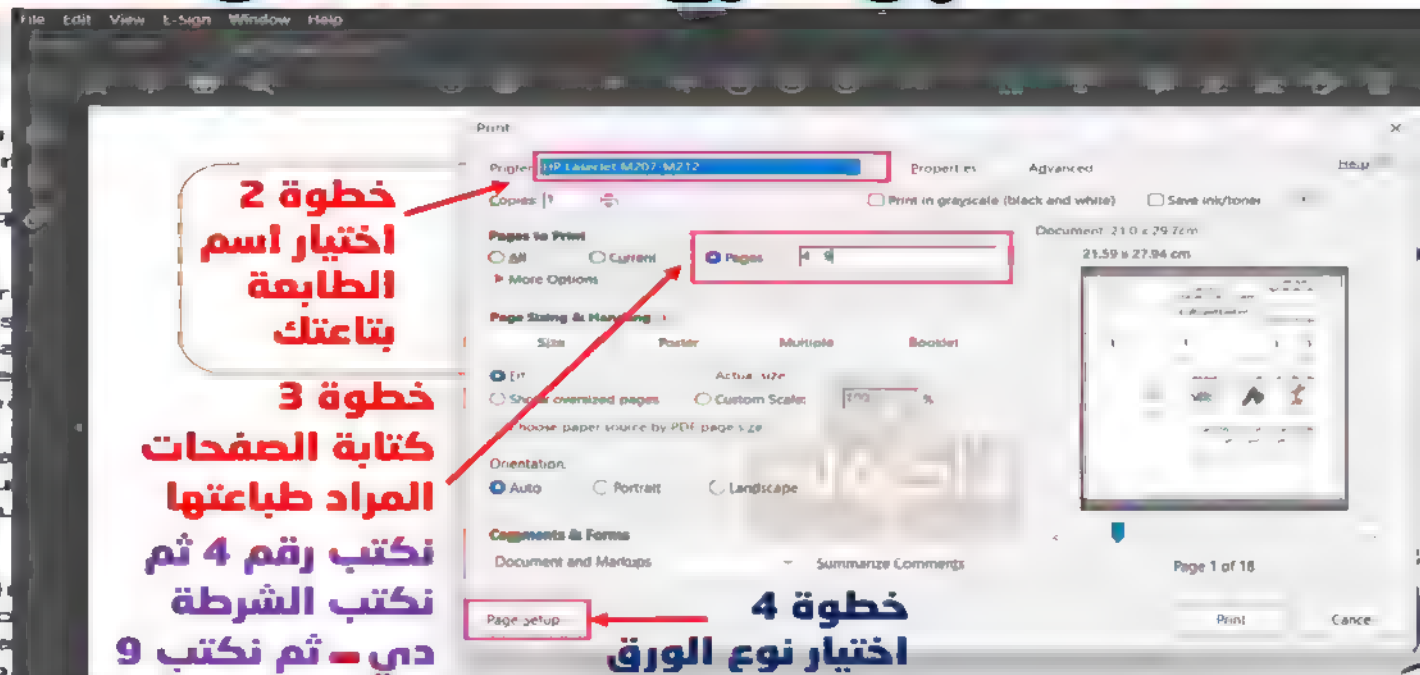
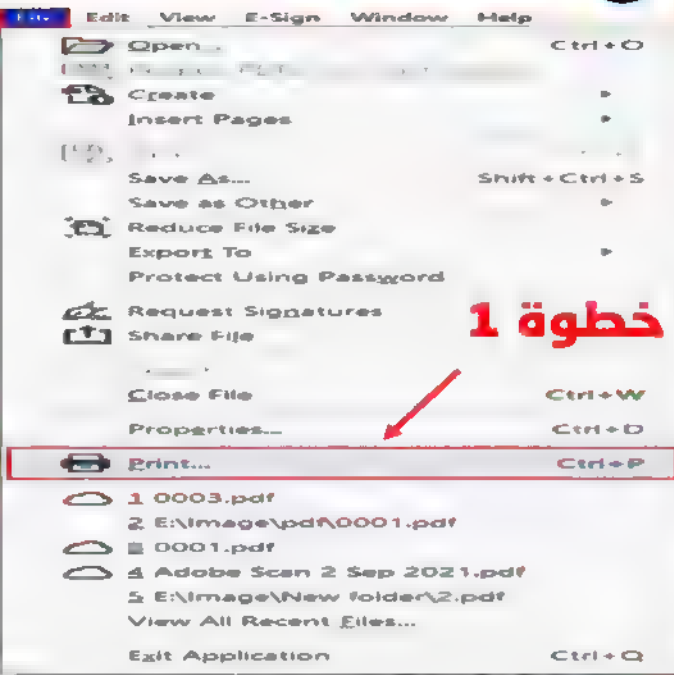
- (B) 1. behavioral – structural
2. sight – touch

- 3 (A) Pushing force.

- (B) 1. Because it does not emit light, but reflects sunlight.
2. Because it produces light and thermal energies.

كيفية طباعة صفحات معينة من ملف معين

مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9



حمل الآن

مجانا وحصريا

امتحانات رقم (2)

الترم الاول



PONY Final Exams

Model Exam 1



(A) Cross out the odd word:

- Light energy – Thermal energy – Sound energy – Electrical energy

(.....)

(B) Write the scientific term:

1. It is the force that pulls objects down toward the Earth. (.....)
2. It is the distance travelled by a moving object in a unit of time. (.....)
3. It is a property that helps a living organism blend in with the surrounding. (.....)
4. It is the body system that composes of brain, spinal cord and nerves. (.....)



(A) Put (✓) or (X):

- Humans don't need a source of light to see clearly in the dark. ()

(B) Complete the following sentences:

1. help to slow the speed of a person movement forward during a car crash.
2. During inhalation, the air travels down from your throat to you lungs through the
3. is formed when the light strikes a/an object such as a human body.
4. In a Newton's cradle, energy loss occurs in the form of .. energy due to friction.

3 (A) Choose the correct answer:

- The _____ keeps its body cool by staying in shaded areas during daytime.
 (a) agama lizard (b) arctic fox (c) brown bear (d) polar bear
- The chemical energy stored in batteries is considered as a form of _____ energy.
 (a) sound (b) kinetic (c) heat (d) potential

(B) Give a reason for:

- Mangrove trees have long, strong roots.

- When a ball is pushed on the ground, it moves a distance and then stops.

- The moon is not a source of light.

4 (A) Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. Dolphins	(a) can turn its head in all directions.
2. Owls	(b) are nocturnal animals that use echolocation property.
	(c) use echolocation to locate their prey in water.

1. _____ 2. _____

(B) What happens if:

- You switch on the electric heater in the house?
 (According to the change of energy)

- Your hand touches the thorns of a cactus plant?

(C) Which figure represents the occurrence of the most dangerous collision? And why?



Figure (1)



Figure (2)

Model Exam 2



(A) Put (✓) or (X):

- A wrecking ball is made of soft steel.

()

(B) What happens if:

1. The diaphragm relaxes during the exhalation process?

2. Bats cannot use the echolocation property?

3. Balanced forces act on a static object?

4. A firefly wants to attract a mate to reproduce?

2

(A) Cross out the odd word:

- Salamander – Frog – Fish – Toad

()

(B) Mention example of each of the following:

1. A visible form of energy.

2. A nonflying bird.

(C) Give a reason for:

1. The polar bear has thick and white fur.

2. Parachutes are used in Shockwave truck and rockets.

3 (A) Observe the image carefully and then answer:

- In the image, there are means of safety equipment during a collision, which are:

1. _____
2. _____



(B) Write the scientific term:

1. They are materials which allow light to pass through. (_____)
2. It is the form of energy that increases when the object's speed increases. (_____)
3. It is an animal with a bowl-shaped face and large eyes. (_____)

4 (A) Choose the correct answer:

1. The energy stored in an object due its position is known as _____ energy.
(a) kinetic (b) electrical (c) chemical (d) potential
2. When an object is in motion, this means that its _____ changes.
(a) color (b) shape (c) position (d) size

(B) Complete each of the following:

1. Birds migrate to search for food is an example of _____ adaptation, while the thick trunk of palm trees is an example of _____ adaptation.
2. When we turn on an electric lamp, _____ and _____ energies are produced.
3. The pupil of nocturnal animals' eyes opens _____ than those of humans' eyes.

Model Exam 3

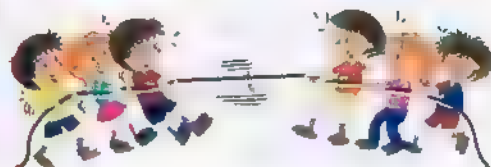
1 (A) Choose the correct answer:

- Adaptation helps living organisms in all the following, except _____
- (a) surviving (b) reproduction (c) hiding (d) death

(B) Complete the following sentences:

1. When the food is low in a colony, _____ ants send a smelly message to _____ ants to find food.
2. The _____ in the car prevent the passenger from rushing _____ when the car stops suddenly.
3. Fireflies are found on _____ trees which have long strong _____ to resist water.
4. Batteries store _____ energy, while a compressed spring stores _____ energy.

2 (A) Mention is the force used in the opposite picture is pulling or pushing.



(B) Give a reason for:

1. Acacia tree has a long taproot, while kapok tree has a buttress root.

2. Collision between two objects usually produces a pop sound.

(C) What happens if:

1. The mirror-like membrane in the fishing cat's eyes is not present?

2. You transfer a book to a lower shelf? _____ (According to its potential energy)



(A) Put (✓) or (X):

1. Panther chameleon belongs to amphibians, while frogs belong to reptiles. ()
2. Unbalanced forces cause a change in the object's position. ()

(B) Write the scientific term:

1. It is the ability to do work or cause a change. ()
2. It is the main control center of the human's body. ()
3. It is a device that a human can depend on to see in the dark. ()



(A) Cross out the odd word:

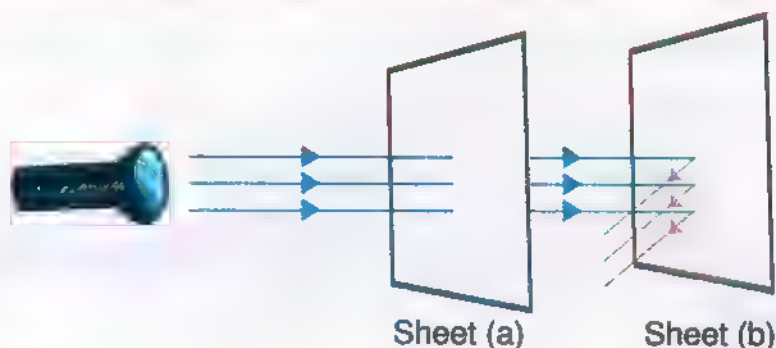
1. Owls – Fishing cats – Foxes – Dolphins ()
2. Thermal energy – Chemical energy – Sound energy – Electrical energy ()

(B) Calculate the speed of a train that covers 500 kilometers in a time 5 hours.

.....

.....

(C) Look at the following figure, then answer the following questions:



1. Mention why do the light rays pass through sheet (a).

.....

.....

2. Is sheet (b) smooth or rough surface? (Give a reason for your answer)

.....

.....

Model Exam 4

1 (A) Put (✓) or (X):

- Sound is produced as a result of a chemical reaction that occurs inside the bodies of fireflies. ()

(B) Give a reason for:

1. Pollution of air and water can affect the survival of amphibians.

2. The presence of hair on the Egyptian jerboa's feet and toes.

3. There is energy transformation when turn on the washing machine.

(C) In the opposite figure, the body is under the effect of _____ forces and moves to the _____ direction.



2 (A) Cross out the odd word:

- Lungs – Trachea – Nose – Esophagus (_____)

(B) Compare between:

P.O.C	Kinetic energy	Potential energy
Affecting factors	_____	_____

(C) What happens if:

1. You raise up a ball of newton's cradle without leaving it?

2. The sound waves produced from a dolphin hits a fish under water?

3 (A) Mention if the following adaptations are structural and behavioral:

1. The mirror-like membrane in the fishing cat's eyes.

.....

2. Fireflies change their flash pattern.

.....

(B) Write the scientific term:

1. It is a heavy steel ball that swings on a cable, and it is used in the destruction of building parts. (.....)

2. It is the force that slows down and opposes the motion of a moving object. (.....)

3. It is the system that controls all the body's functions, and nerves are one part of it. (.....)

4 (A) Choose the correct answer:

1. Chemical energy is stored in the

(a) food only

(b) battery only

(c) food and television

(d) food and battery

2. Digestion of food begins in the

(a) stomach

(b) mouth

(c) liver

(d) small intestine

(B) Mention one example of each of the following:

1. A reptile that lives in the tropical rainforest.

.....

.....

2. A smooth shiny surface.

.....

.....

(C) Calculate the speed of train that covers 450 km in a time of 3 hours.

.....

.....

.....

.....

Model Exam 5



(A) Choose the correct answer:

• Collision always produces energy.

(a) solar

(b) sound

(c) potential

(d) chemical

(B) Complete the following sentences:

1. All types of energy can be classified into two main groups, which are and energies.

2. The penguin's body stays warm through a thick layer of and dense

3. Humpback whales produce sounds in summer months because they travel better in water.

4. The fishing cat can hunt at night due to the bouncing off energy as they have in the back of its eyes.



(A) Cross out the odd word:

• Water – Air – Wood – Glass

(.....)

(B) Write the scientific term:

1. It's a property by which a bat can locate insects through the sound reflected from them.

(.....)

2. It is a force that causes an object to move a distance.

(.....)

(C) Mention one importance of each of the following:

1. Seatbelt.

.....

2. Lighthouse.

.....



(A) Put (✓) or (X):

1. When running and making an effort, the number of breathing times increases. ()
2. The speed of a roller coaster increases as it moves towards the top of the ramp. ()

(B) Give a reason for:

1. A shadow is formed when light falls on an opaque object.
2. The Egyptian jerboa has long hind legs.
3. Panther chameleon has V-shaped feet and a long tail.



(A) Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. Bull shark	a) can live in salt water only.
2. Waterlily	b) has wide leaves to absorb a large amount of sunlight.
	c) can live in fresh and salt water.

1. _____ 2. _____

(B) What happens if:

1. A boy on a bike stops pedaling?
2. You switch on a flashlight? (According to the change of energy)

(C) In the opposite figure:

- Which car will cover a longer distance?
(Give reason for your answer)



Model Exam 6



(A) Cross out the odd word:

- Palm tree – Barbary fig – Fennec fox – Polar bear

(.....)

(B) Give a reason for:

1. You feel warm when you rub your hands together.

.....

2. Owl can turn its head in all directions.

.....

(C) Write the scientific term:

1. It is a push or pull that is applied on an object causing it to change its position.

(.....)

2. They are objects that emit their own light.

(.....)



(A) Correct the underlined word:

- Time is measured in kilometer per hour.

(.....)

(B) Compare between:

P.O.C	Inhalation process	Exhalation process
Movement of diaphragm		
The air is rich in		

(C) Mention one example of each of the following:

1. A flying mammal.

.....

2. A desert rodent.

.....

3 (A) Put (✓) or (X):

1. Acacia tree stores water in its roots. ()
2. In cricket game, the bat transfers its potential energy to the ball. ()

(B) What happens if:

1. Light rays fall on a shiny smooth surface such as a mirror?
.....
2. You throw a ball upwards? (According to its potential energy)
.....

(C) What's meant by:

- Friction?
.....

4 (A) Choose the correct answer:

1. The chemical energy stored in batteries is considered a form of energy.
(a) potential (b) kinetic (c) heat (d) sound
2. use echolocation by producing high-pitched sounds in the air.
(a) Dolphins (b) Owls (c) Whales (d) Bats

(B) Complete the following sentences:

1. Fireflies depend on the sense of to communicate, while ants depend on the sense of to communicate.
2. Kinetic energy increases by increasing the and of an object.

(C) Look at the following figure, then complete:

- Changing the color fur of arctic fox into
..... color when snow melts is
considered as a adaptation.



Model Exam 7

1 (A) Choose the correct answer:

- Writing and reading is a type of communication among
 (a) humans (b) birds (c) plants (d) animals

(B) Complete the following sentences:

1. Two allow air to pass from the to the two lungs.
2. The speed = ÷
3. The eyes send messages to the through the
4. An apple falling from a tree is caused by the force of

2 (A) Cross out the odd word:

- Polar bear – Pine tree – barbary fig – Arctic fox (.....)

(B) Write the scientific term:

1. It is the energy that the object gains due to its motion. (.....)
2. It is a liquid found in the mouth that facilitates the swallowing of food. (.....)
3. It is the visible form of energy that enables us to see. (.....)
4. It is the organ that is affected by light and responsible for sight. (.....)

3 (A) Correct the underlined word:

1. Fennec fox lives in burrows at night. (.....)
2. Potential energy is transferred between two objects during a collision. (.....)



(B) Give a reason for:

1. Water lily has wide, floating leaves.

2. Air and water are considered transparent materials.

3. A bird flying up in the sky, its potential energy increases.



(A) Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. Pulling force	a. is used to open a closed drawer.
2. Pushing force	b. is a type of energy.
	c. is used to catch a ball is thrown in air.

1. _____ 2. _____

(B) What happens if:

1. Panther chameleon is exposed to danger?

2. Light rays fall on a rough surface, such as wood or paper?

(C) Look at the following figure, then complete:

- When the spring is compressed, the _____ energy is converted into _____ Energy.



Model Exam 8

1 (A) Cross out the odd word:

- Eye – Ear – Tongue – Hearing

(.....)

(B) Give a reason for:

1. Bat is a nocturnal animal.

.....

2. Driving fast is very dangerous.

.....

(C) Write the scientific term:

1. It is the gas present in air and water that living organisms breathe in during respiration.

(.....)

2. It is an organ through which solid waste leaves the body.

(.....)

2 (A) Would you apply pulling or pushing force to lift a bag from the ground?

.....

(B) Compare between:

1.

P.O.C	Acacia tree	Kapok tree
Habitat		
Shape of leaves		

2.

P.O.C	Transparent materials	Opaque materials
Definition		

(C) Look at the following figure, then complete:

- When the player hits the ball with the bat, the energy of the bat transfers to the ball and its speed



3 (A) Choose the correct answer:

1. The process of vision occurs as a result of the of light.
(a) scattering (b) reflection (c) absorption (d) refraction
2. The sense organs collect information and send signals to the
for processing and understanding.
(a) lungs (b) nerves (c) spinal cord (d) brain

(B) Mention the importance of each of the following:

1. Stomach.

.....

2. Skin for amphibians.

.....

(C) Explain the relation between the kinetic energy of a moving object and its speed.

.....

.....

4 (A) Correct the underlined word:

1. Panther chameleon has sandy-colored scales. (.....)
2. The force that arises between the surfaces of two objects in contact is known as gravity. (.....)

(B) What happens if:

1. You turn on the gas oven? (According to the change of energy)

.....

.....

2. Ant's colony is exposed to danger?

.....

.....

3. A moving car runs out of fuel?

.....

.....

Model Exam 9



(A) Choose the correct answer:

- ... such as salamanders live in ... environments.

- (a) Reptiles – dry (b) Amphibians – dry
 (c) Amphibians – moist (d) Reptiles – wet

(B) Complete the following sentences:

1. When a car moves up on a ramp, its kinetic energy _____, while its potential energy _____.
2. The sensory receptors in your _____ sense the hotness and coldness of weather, while those in your _____ helps you identify the sour taste of lemon.
3. _____ is a long winding tube in which _____ and pancreas pour their juices.
4. If Noor travels with her bicycle a distance of 20 km in two hours, she is travelling at a speed of _____ km/hr.



(A) Correct the underlined word:

- Energy before collision is greater than the energy after collision. (_____)

(B) Give a reason for:

1. Barbary figs have sharp spines.

2. A book placed on a table doesn't move.

3. Egyptian mongooses produce sounds like chatter.

(C) Look at the opposite figure then answer the questions below:

1. What's the name of the property used by the bat in this figure?

2. What's the name of the waves ①?



 (A) Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. Sound energy	Ⓐ is a visible form of kinetic energy that travels in air in the form of waves.
2. Chemical energy	Ⓑ is an audible form of kinetic energy that travels in air in the form of waves.
	Ⓒ is a form of potential energy that is stored in the food we eat.

1. 2.

(B) What happens if:

1. The pulling force of one of the two teams in tug-of-war game is greater than the other team?
.....

2. The blood vessels in the penguin's feet and toes aren't weave around each other?
.....

3. A boy moves down the slide? (According to the change of energy)
.....

 (A) Classify the following materials into transparent and opaque:

(Air – Carton – Metal – Glass)

Transparent materials	Opaque materials
.....	

(B) Write the scientific term:

1. It is a muscle that contracts during inhalation and expands during exhalation. (.....)

2. It is a form of potential energy that causes objects to rush towards the Earth's surface. (.....)

3. It is the force exerted when objects rub against each other. (.....)

Model Exam 10



(A) Cross out the odd word:

- Esophagus – Saliva – Stomach – Small intestine

(.....)

(B) Give a reason for:

1. Gills are unique structural adaptations in fish.

.....

2. Dogs are used in guarding.

.....

3. Firefly beetles produce a chemical reaction inside their bodies.

.....

4. The goal net vibrates when a moving ball hits it.

.....



(A) Choose the correct answer:

- Light rays travel in the form of lines in the air. ✓
 (a) curved (b) straight (c) circular (d) zigzag

(B) Compare between each of the following:

P.O.C	Arctic fox	Fennec fox
Habitat		
Size of ears		

(C) Mention the function of each of the following:

1. Large intestine.

.....

.....

2. Spinal cord.

.....

.....

3 (A) Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. Pulling force	Ⓐ is the force used to move an object away from you.
2. Pushing force	Ⓑ can be observed when gravity pulls objects upward.
	Ⓒ is the force used to move an object towards you.

1. 2.

(B) Write the scientific term:

1. It is a pattern that has a meaning. ()
2. It is the change in an object's position relative to a fixed point. ()
3. They are air sacs surrounded by blood vessels in the respiratory system. ()

4 (A) Put (✓) or (x):

1. Energy is not destroyed, but it changes from one form to another. ()
2. Seatbelts absorb the energy of the passengers during collision. ()

(B) What happens if:

1. You see the red traffic light as you crossing the road?

.....

.....

.....

2. The kinetic energy of a moving car increases?

(According to the damage during collision)

.....

.....

.....

3. You put an opaque object between a light source and a wall?

.....

.....

.....

Governorate Exams

Model 1 Cairo – New Cairo Directorate

 (A) Put (✓) or (X) on the following statement:

1. The body of penguin is covered by dense fur in order to be warm. ()
2. The food chain begins with consumers. ()
3. A ball at the top of the hill has potential energy. ()

(B) What happens when turning on the gas oven?

.....

 (A) Complete the following sentence:

- The main control center of the body is the
- Ⓐ nerves Ⓑ brain Ⓒ spinal cord Ⓓ lung

(B) Give a reason for:

1. Fireflies emit flashlights.

.....

2. The driver uses the seatbelt while driving.

.....

 (A) Write the scientific term:

- It is a pattern that has meaning. (.....

(B) 1- Determine the type of adaptation (Structural – Behavioral):

- a. Acacia tree sends a smelly message. (.....
- b. Fennec fox has large ears. (.....

2- Write the type of energy (potential – Kinetic):

- a. A book on a table. (.....
- b. Pushing a wheelbarrow. (.....

Model 2 Cairo – Ain Shams Directorate

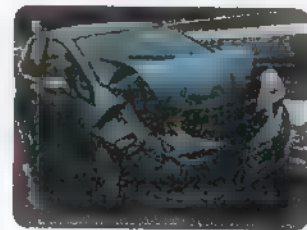
1 (A) Choose the correct answer:

1. Animals that live in a hot environment have ears to help them get rid of the excessive body temperature.
 (a) small (b) short (c) long (d) sharp
2. You could determine how loud the train sound is by
 (a) sound pitch (b) sound style (c) sound echo (d) sound type

(B) Observe the image carefully and then answer:

- In the image, there are means of safety equipment passengers during a collision, which are.

1. 2.



2 (A) Put (✓) or (X) on the following statement:

- Nocturnal animals have eyes that are larger than human eyes. ()

(B) Answer the following:

- Which of the following surface represents the reflection of light rays from wooden spoon- and what is reason?



Figure (A)



Figure (B)

(C) Calculate the speed of train that covers 450 km in a time of 3 hours.

3 (A) Write the scientific term:

- It is the time that body takes to receive information from the environment.
 (.....

(B) Give reasons for:

1. The fennec fox and arctic fox eat all types of food.

2. When a ball is pushed on the ground, it moves a distance and then stops.

Model 3 Cairo – Al shorouk Directorate

1 (A) Choose the correct answer:

1. Fish breathe oxygen dissolved in water by
 (a) Lungs (b) Gills (c) Skin (d) Fins
2. An animal that has ability to turn its head in all directions is
 (a) Snake (b) Jerboa (c) Dolphin (d) Owl
3. passes the food from pharynx to stomach.
 (a) Esophagus (b) Stomach (c) Trachea (d) Alveoli

(B) Write the scientific term:

- It is the ability to do work. (.....)

2 (A) Complete the following statement:

- The long ears of the fennec fox are example of adaptation.

(B) Mention importance of each of the following:

1. Seatbelt.

.....

2. A wrecking ball.

.....

3 (A) Put (✓) or (x) on the following statement:

- Nocturnal animals become active at morning to look for their food. ()

(B) Correct the underlined words:

1. Airbags are made up of thick wooden material. (.....)
2. When the object moves faster, its potential energy increases. (.....)

Model 4 Cairo – Badr Directorate

1 (A) Choose the correct answer:

- The organ responsible for pain when your hands touch spines is
 (a) nerves (b) brain (c) eyes
- The thick white fur is an adaptation in
 (a) panther chameleon (b) polar bear (c) fennec fox
- The book that put on the table stores energy.
 (a) potential (b) light (c) kinetic

(B) What happen if:

- Two cars move in the same direction colloid?

2 (A) Cross out the odd word of the following:

- Long ear in fennec fox - long neck in giraffe - hiding lizard between rocks.

(B) Give a reason for:

- The moon is not considered a source of light.

(C) Find the speed of the car that covers 300 km in 3 hours.

3 (A) Complete the following:

- The nervous system includes and

(B) What's meant by:

- Friction?

(C) Which of the following shows how can light reflect on a mirror?

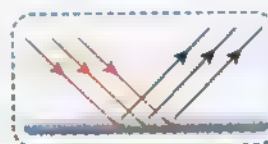


Figure (A)



Figure (B)

Model 5 : Give a 4 October Directorate



(A) Choose the correct Answer:

- Dolphin depends on their sharp sense of to get food.
 (a) sight (b) taste (c) smell (d) hearing
- The presence of thick white fur is an adaptation in
 (a) polar bear (b) forest bear (c) desert lizard (d) bat
- Paper and wood are materials.
 (a) opaque (b) shiny (c) liquid (d) gases

(B) Write one example for:

- A form of potential energy.



(A) Put (✓) or (X) on the following statement:

- Digestion process starts in mouth.

()

(B) What happen if:

- Fennec fox has short ear?

.....

.....

- If the body moves down the slide?

.....

.....



(A) Cross out the odd word:

- Spinal cord – Lungs – Nerves – Brain

(.....)

(B) Give reason for:

- Acacia tree has very long trunk.

.....

.....

- The Shockwave truck is faster than the normal truck.

.....

.....

Model 6 Qalyobia Banha Directorate

1 (A) Choose the correct Answer:

- Polar bears have a white fur to
 (a) live in desert (b) see in dark
 (c) hide from predator or their prey (d) live in forests
- Ants communicate with each other using
 (a) sight (b) smell (c) touch (d) taste
- Which of the following materials reflect light best
 (a) wood (b) cloth (c) mirrors (d) rock

(B) Write the scientific term of each of the following:

- A force that causes objects move toward you. ()

2 (A) Correct the underlined word:

- An organ that breaks down food to nutrients is stomach. ()

(B) Give reason for the following:

- Egyptian jerboa can jump for long distance.

(C) What happens if:

- A book is transferred from the ground to table?
 (According to the potential energy)

3 (A) Put (✓) or (x) on the following statements:

- Rough objects reflect light better than smooth ones. ()

(B) Mention each of the following:

- The name of organ that contract and relax in respiration process.
- Two forms of kinetic energy.

Model 7 Alexandria – East Directorate

1 (A) Choose from column (B) what suits them from column (A):

Column (A)	Column (B)
1. Smell	a The force that tries to slow or stop a moving object.
2. Friction	b A force that moves an object away from you.
3. Carbon dioxide	c Ants use it to communicate.
	d A gas produced by respiration.

1. _____ 2. _____ 3. _____

(B) Write the scientific term of each of the following statements:

- It is the ability to do work or to make a change. (_____)

2 (A) Put (✓) or (x) on the following statements:

- Red and green traffic lights are codes. ()

(B) Give a reason for:

- Glass is a transparent material.

(C) Compare between the following (one example for each one):

Behavioral Adaptation	Structural Adaptation
_____	_____
_____	_____

3 (A) Cross the odd word:

- Stomach – Lung – Mouth – Large intestine (_____)

(B) Mention safety means used during collision of cars:

(C) Correct the underlined word:

- Kinetic energy is the energy stored inside the body. (_____)

Model 8 Dakahlia – Educational Directorate

1 (A) Choose the correct Answer:

- pass the food from pharynx to stomach.
 (a) Esophagus (b) Stomach (c) Trachea (d) Alveoli
- All of the following are components of the nervous system, except ...
 (a) spinal cord (b) heart (c) nerves (d) brain
- is one of the behavioral adaptations that helps the animal protect itself from enemies.
 (a) camouflage (b) extinction (c) immigration (d) reproduction

(B) Study the following picture, and then answer the following questions:

- Are the forces on both sides balanced or unbalanced?
- In which direction will the rope move? (Right or left).



2 (A) Put (✓) or (X) on the following statements:

- Bats use their sense of smell to avoid dangers.

(.....)

(B) Answer the following:

- Compare** between transparent and opaque objects.

- Classify** the following energies into kinetic and potential:

- Light – Chemical – Thermal – gravitational

- Give** one function to the airbags:

3 (A) Correct the underlined word:

- Exhale air carries oxygen.

(.....)

(B) Answer the following:

- Determine the type of adaptation** in the following .

- (a) Thick, white fur in the polar bear (b) Fennec fox lives in burrows

- Calculate the speed of the train that covers 600km in a time 6 hours.**

- Which of the following consumes less fuel a truck or small car?**

Model 9 Port Said – Porfouad Directorate

1 (A) Choose the correct answer:

- Fennec fox has to enable blending in the desert.
 (a) dark colored fur (b) thick white fur
 (c) sandy colored fur (d) black colored fur
- tree grow in salt water.
 (a) Kapok (b) Palm (c) Mangrove (d) Acacia
- The lungs are organ in the system.
 (a) respiratory (b) digestive (c) circulatory (d) nervous

(B) Mention the type of force:

- Forces that pulls objects down toward the Earth.

2 (A) Put (✓) or (x) on the following statement:

- Egyptian jerboa depends on echolocation to find food. ()

(B) Give reasons for the following:

- The moon is not a source of light.
- The larger body in the mass causes more damage during collision.

3 (A) Write the scientific term:

- It is the organ affected by light and responsible for vision. ()

(B) What happens when:

- Human lungs are replaced by gills?
- Pressing the brakes of the car?

1 (A) Put (✓) or (X) on the following statement:

1. Small intestine from the important organs in the respiratory system. ()
2. Firefly beetles communicate by the sense of smell. ()
3. Brain is the main control center in the human body. ()

(B) What happens if:

- The speed of object increases? (According to the kinetic energy)

2 (A) Choose the correct answer:

- All of the following are forms of kinetic energy except the
☐ (a) sound ☐ (b) light ☐ (c) food ☐ (d) electricity

(B) Complete the following statement:

1. Panting in fennec fox is considered as adaptation, while long ears is considered as adaptation.
2. We can identify the colors by using sense, while we can differentiate between smooth and rough things by sense.

3 (A) Write the scientific term:

- It is the force that you make to move objects away from you. (.....)

(B) Give reasons for:

1. The moon appears bright although it is not source of light.

2. Electric lamp produces different types of energy.

PONY Final Exams Model Answers

Model Exam 1

- Q1** (A) light energy
 (B) 1 Gravity. 2 Speed.
 3 Camouflage. 4 Nervous system.
- Q2** (A) x
 (B) 1 Airbags 2 trachea
 3 Shadow – opaque 4 thermal
- Q3** (A) 1 a 2 d
 (B) 1 To resist water waves.
 2 Due to friction force between the ball and the ground that slows down the ball's movement.
 3 Because it doesn't emit its own light, but it reflects the sunlight falling on it.
- Q4** (A) 1 c 2 a
 (B) 1 Electrical energy is changed into thermal energy.
 2 You withdraw your hand quickly as a reflex action.
- (C) Figure (1), because the two cars are moving in opposite directions.

Model Exam 2

- Q1** (A) x
 (B) 1 The chest size decreases, and carbon dioxide is expelled outside the body.
 2 They can't hunt at night.
 3 The object stays static and doesn't move.
 4 It produces a chemical reaction inside its body to light up and attract a mate.
- Q2** (A) Fish
 (B) 1 Light. 2 Penguin.

- (C) 1 It has a thick fur to keep its body warm, and the white fur to blend in with snow to sneak up on its prey.
 2 To slow down their movement.
- Q3** (A) 1 Seatbelt. 2 Airbag.
 (B) 1 Transparent materials.
 2 Kinetic energy.
 3 Owl.
- Q4** (A) 1 d 2 c
 (B) 1 behavioral – structural.
 2 light – thermal.
 3 wider.

Model Exam 3

- Q1** (A) d
 (B) 1 nurse – scout
 2 seatbelts – forward
 3 mangrove – roots
 4 chemical – potential
- Q2** (A) Pulling force
 (B) 1 A long taproot helps acacia tree to search for water, while the buttress root fixes the kapok tree firmly in soggy soil.
 2 Because some of the kinetic energy is converted into sound energy.
- (C) 1 It won't have an excellent night vision, so it can't hunt at night.
 2 Its potential energy decreases.
- Q3** (A) 1 x 2 ✓
 (B) 1 Energy. 2 Brain.
 3 Night vision goggles.
- Q4** (A) 1 Dolphins 2 Chemical energy
 (B) $v = d \div t = 500 \div 5 = 100 \text{ km/hr.}$
 (C) 1 Because it is a transparent material.

- 2 Sheet (b) is a smooth surface, because it reflects light rays in one direction.

Model Exam 4

Q1 (A) x

- (B) 1 Because they respire oxygen gas from water and air.
2 To grip sand when it jumps.
3 Because electrical energy is converted into kinetic and sound energies.

(C) unbalanced – left

Q2 (A) Esophagus

(B) 1

P.O.C	Kinetic energy	Potential energy
Affecting factors	1 Object's mass 2 Object's speed	1 Object's mass 2 Object's height from the ground

- (C) 1 It stores potential energy.
2 It returns back in the form of echo waves, so the dolphin can locate the fish.

Q3 (A) 1 Structural adaptation.

2 Behavioral adaptation.

- (B) 1 Wrecking ball. 2 Friction force.
3 Nervous system.

Q4 (A) 1 d 2 b

- (B) 1 Panther chameleon.
2 Mirror.

(C) $v = d \div t = 450 \div 3 = 150 \text{ km/hr.}$

Model Exam 5

Q1 (A) b

- (B) 1 potential – kinetic 2 fat – feathers
3 low-pitched, warm
4 light, mirror-like membrane

Q2 (A) Wood

- (B) 1 Echolocation. 2 Work.

- (C) 1 It keeps driver and passengers from moving forward when the car stops suddenly.
2 It sends codes in the form of flashes of light to tell sailors where they are.

Q3 (A) 1 ✓ 2 x

- (B) 1 Because the opaque object doesn't allow light to pass through.
2 To help it jump for long distances and escape from danger.
3 To hold tightly on tree branches.

Q4 (A) 1 c 2 b

- (B) 1 The speed of the bike decreases gradually until it stops.
2 Chemical energy is converted into light energy and thermal energy.
(C) Car (B), because the angle of inclination of the ramp increases, the speed of the car moving on it increases.

Model Exam 6

Q1 (A) Polar bear

- (B) 1 Because kinetic energy is changed into thermal energy.
2 To search for prey in all directions.

- (C) 1 Force. 2 Sources of light.

Q2 (A) Speed

(B)

P.O.C	Inhalation process	Exhalation process
Movement of diaphragm	It contracts and moves downward.	It expands and moves upward.
The air is rich in	Oxygen gas	Carbon dioxide gas

(C) 1 Bat. 2 Egyptian jerboa.

Q3 (A) 1 x 2 x

(B) 1 Light rays are reflected in one direction.
2 Its potential energy increases.

(C) It is the force exerted when objects rub against each other.

Q4 (A) 1 a 2 d

(B) 1 sight – smell 2 mass – speed

(C) brown – structural

Model Exam 7

Q1 (A) a

(B) 1 bronchi – trachea 2 distance – time
3 brain – nerves 4 pulling – gravity

Q2 (A) Barbary fig

(B) 1 Kinetic energy. 2 Saliva.
3 Light energy. 4 Eye.

Q3 (A) 1 Arctic fox 2 Kinetic

(B) 1 To absorb large amount of sunlight.
2 Because they allow light to pass through.
3 Because its height from the ground increases.

Q4 (A) 1 a 2 c

(B) 1 It puffs up its body with air, opens its mouth widely and changes its scales color.
2 They are scattered and reflected in many directions.

(C) kinetic – potential

Model Exam 8

Q1 (A) Hearing

(B) 1 Because it becomes active at night.
2 Because when the car's speed increases, its kinetic energy increases causing exerting a great force during collision.

(C) 1 Oxygen gas. 2 Anus.

Q2 (A) Pulling force.

(B) 1

P.O.C	Acacia tree	Kapok tree
Habitat	Savannah grassland	Amazon rainforest
Shape of leaves	Tiny leaves with sharp spines.	Hand-shaped leaves with narrow parts.

2

P.O.C	Transparent materials	Opaque materials
Definition	They are the materials that allow most of light to pass through.	They are the materials that don't allow light to pass through.

(C) kinetic – increases

Q3 (A) 1 b 2 d

(B) 1 It mixes food with stomach acid and digestive juices and changes food into a soupy liquid.
2 It helps amphibians to extract oxygen gas directly from water.

(C) When the object's speed increases, its kinetic energy increases and vice versa.

Q4 (A) 1 Desert lizard 2 friction

(B) 1 Chemical energy is changed into thermal energy.
2 Soldier ants sent smelly messages to other ants to alert them.
3 Its speed decreases gradually until it stops.

Model Exam 9

Q1 (A) c

- (B) 1 decreases – increases
2 skin – tongue
3 small intestine – liver
4 10

Q2 (A) equal to

- (B) 1 To prevent animals from eating its leaves and fruits.
2 Because it is affected by balanced forces which are the pulling force of gravity and the pushing force of the table.
3 To communicate with each other to move from one place to another or to search for food.

(C) 1 Echolocation. 2 Echo waves.

Q3 (A) 1 b 2 c

- (B) 1 The rope will move toward the team of the greater pulling force.
2 The blood moving up to the penguin's body would be cold causing it to freeze.
3 Potential energy is changed into kinetic energy.

Q4 (A)

Transparent materials	Opaque materials
Air – Glass	Carton – Metal

- (B) 1 Diaphragm. 2 Gravity.
3 Friction force.

Model Exam 10

Q1 (A) Saliva

- (B) 1 Because they help fish to get oxygen gas from water.
2 Because they have shape senses of hearing and smelling.
3 To light up their bodies to communicate with each other.

- 4 Because the kinetic energy of the ball transfers to the goal net during collision.

Q2 (A) b

(B) 1

P.O.C	Arctic fox	Fennec fox
Habitat	Tundra desert	Hot desert
Size of ears	Short ears	Extra-large ears

- (C) 1 It absorbs water from undigested food.
2 It carries messages from the brain to all body parts and vice versa.

Q3 (A) 1 c 2 a

- (B) 1 Code. 2 Motion.
3 Alveoli.

Q4 (A) 1 ✓ 2 x

- (B) 1 You will stop at once.
2 It causes more severe damage.
3 A shadow of the object is formed on the wall.

Governorate Exams Model Answers

Model 1 - Cairo - New Cairo Directorate

- Q1 (A)** 1 x 2 x 3 ✓
(B) The chemical energy stored in natural gas changes into thermal energy.
- Q2 (A)** b
(B) 1 To communicate with each other to attract mates to reproduce or to warn off predators.
 2 Because seat belt keeps the driver and passengers from moving forward when the car stops suddenly.

- Q3 (A)** Code.
(B) 1 a- Behavioral b- Structural
 2 a- Potential b- Kinetic

Model 2 - Cairo - Ain Shams Directorate

- Q1 (A)** 1 c 2 a
(B) 1 Seatbelt 2 Airbag
- Q2 (A)** ✓
(B) Figure (b) because wooden spoon scatters light rays in different direction.
(C) Speed = Distance ÷ Time
 $= 450 \div 3 = 150 \text{ km/h.}$
- Q3 (A)** Reaction time.
(B) 1 Because it is hard to find food in hot desert or tundra desert so they adapt and eat insects, fruit, plant roots to survive.
 2 Because friction slows it down until it stops.

Model 3 - Cairo - Al-Shorouk Directorate

- Q1 (A)** 1 b 2 d 3 a
(B) Energy.
- Q2 (A)** structural

- (B)** 1 Seatbelt keeps the driver and passengers from moving forward when the car stops suddenly.
 2 A wrecking ball used to collide walls of a building to knock down walls or parts of buildings.

- Q3 (A)** x
(B) 1 thin nylon 2 kinetic

Model 4 - Cairo - Badr Directorate

- Q1 (A)** 1 b 2 b 3 a
(B) The damage would be less severe.
- Q2 (A)** Hiding lizard between rocks
(B) Because it reflects sunlight.
(C) Speed = Distance ÷ Time
 $\text{Speed} = 300 \div 3 = 100 \text{ km/h.}$
- Q3 (A)** brain and spinal cord.
(B) It is the force that is exerted when objects rub against each other.
(C) Figure (A).

Model 5 - Giza - 6th October Directorate

- Q1 (A)** 1 d 2 a 3 a
(B) Gravitational potential energy
- Q2 (A)** ✓
(B) 1 It cannot cool its body.
 2 Potential energy changes into kinetic energy.
- Q3 (A)** Lungs.
(B) 1 To store water. – To prevent animals from reaching its leaves to feed on.
 2 Because the Shockwave truck has three jet engines.

Model 6 - Galyobia - Banha Directorate

- Q1 (A)** 1 c 2 b 3 c
(B) Pulling force

- Q2** (A) small intestine
 (B) Because it has long hind legs.
 (C) Its potential energy increases.

- Q3** (A) x
 (B) 1 Diaphragm
 2 Light energy, Sound energy

Model 7 Alexandria - Educational Directorate

- Q1** (A) 1 c 2 a 3 d
 (B) Energy.

- Q2** (A) (✓)
 (B) Because glass allows light to pass through it and things can be seen through it.
 (C)

**Behavioral
 Adaptation**

Structural Adaptation

Fennec fox
 pants like dog.

Fennec fox large ears.

- Q3** (A) Lung
 (B) 1 Seat belt 2 Airbag
 (C) Potential

Model 8 Dakahlia - Educational Directorate

- Q1** (A) 1 a 2 b 3 a
 (B) 1 Unbalanced force 2 Right

- Q2** (A) x
 (B) 1

Transparent objects

Opaque objects

They are objects that
 allow light to pass
 through.

They are objects that
 don't allow light to pass
 through.

Example: - air - water

Example: rocks - wood

- 2 Kinetic energy: light – thermal
 Potential energy: Chemical –
 Gravitational

- 3 Airbags slow the speed of the driver's motion forward. – Absorb the energy of the passengers on collision.

- Q3** (A) Carbon dioxide
 (B) 1 a-Structural adaptation
 b-Behavioral adaptation
 2 Speed = Distance ÷ Time = 600 ÷ 6
 = 100 km/h.
 3 Small car

Model 9 Port said - Portouad Directorate

- Q1** (A) 1 c 2 c 3 a
 (B) Gravity (pulling force)

- Q2** (A) x
 (B) 1 Because it reflects sunlight.
 2 Because when the mass of an object increases, its kinetic energy increases.

- Q3** (A) Eye
 (B) 1 Humans could respire oxygen which dissolve in water.
 2 The speed of car decreases until it stops.

Model 10 Matrouh - Educational Directorate

- Q1** (A) 1 x 2 x 3 ✓
 (B) Its kinetic energy increases

- Q2** (A) c
 (B) 1 behavioral - structural
 2 sight - touch

- Q3** (A) Pushing force.
 (B) 1 Because it reflects sunlight.
 2 Because it produces light energy and thermal energy.

حمل الآن

مجانا وحصريا

امتحانات رقم (3)

الترم الاول



1 A) Write the scientific term:

- A type of adaptation that helps the living organism to sneak up on preys.

()

B) Answer the following questions:

- 1 Mention structural adaptations in the Egyptian jerboa:

•

- 2 How can we see objects?

•

•

- 3 What type of adaptation is the polar bear's white, thick fur?

•

- 4 Give an example for pushing and pulling force.

•

2 A) Complete the following sentence:

- The owl can detect the location of its prey by using its sharp senses like and .

B) Answer the following questions:

- 1 Compare between the Sun and the Moon as sources of light.

•

- 2 Give an example of the behavioral adaptation for one living organism.

•

- 3 Explain the state of a body when it is affected by balanced and unbalanced forces.

•

•

- 4 What are the factors that depend on the speed of the moving objects?

•

3 A) Choose the correct answer:

- 1 energy is a visible form of energy that our eyes can detect.

a) Heat

b) Sound

c) Light

d) Electrical

- 2 By decreasing the number of fire extinguishers fixed on a cart, its speed

a) becomes zero

b) remains constant

c) decreases

d) increases

B) Give a reason for:

1 It is always advisable to wear a seat belt while driving.

•

2 Humpback whales sing in the winter.

•

3 The roller coaster doesn't need electricity when moving down the ramp.

•

4 A) Put (✓) or (X) in front of the following sentences:

1 Light and sound are common methods to communicate between humans and animals.

()

2 The nervous system works separately from the five senses.

()

B) Define:

1 Digestion process

•

2 Opaque objects

•

3 Motion

•

1 A) Complete the following sentence:

- Animals that live in extreme cold weather habitat have _____ ears.

B) What happens if ...?

- 1 Humans have large eyes with larger eye pupils.

• _____

- 2 The panther chameleon has no V-shaped feet.

• _____

- 3 A suitable pushing force acts on a static object.

• _____

- 4 A moving ball hits a tennis bat.

• _____

2 A) Write the scientific term:

- The distance traveled during unit of time. (_____)

B) Answer the following questions:

- 1 What are the reasons for nocturnal animal activity?

• _____

• _____

• _____

- 2 Look at the following figures, then answer:



- If we push the given objects with the same force, which one of them will travel a greater distance?

• _____

- 3 **Mention** the characteristics that help penguins to stand barefoot on ice for a long time.

• _____

- 4 **Compare** between potential energy and kinetic energy according to their definitions.

Potential energy

Kinetic energy

3 **A) Choose the correct answer:**

- 1 When an acrobat player jumps down, his _____ increases.
a) speed b) height c) mass d) potential energy
- 2 The nerves of the _____ are connected directly to the brain.
a) ear b) skin c) eye d) nose

B) Give a reason for:

- 1 Your body needs energy.
• _____
- 2 The human body has a shadow.
• _____
- 3 You can hear a sound during collision between marbles.
• _____

4 **A) Put (✓) or (X) in front of the following sentences:**

- 1 Hunting at night for nocturnal animals is considered a behavioral adaptation. ()
- 2 When the air is released backward from the fire extinguishers fixed to a cart, the cart moves backward. ()

B) What is the importance of...?

- 1 Friction
• _____
- 2 Sensory receptors
• _____
- 3 Saliva
• _____

1 A) Complete the following sentence:

- and are examples of codes.

B) What happens ...?

- 1 If humans don't have small intestines.

•

- 2 When an unbalanced force acts on a static object.

•

- 3 When dolphins do not have a super sense of hearing.

•

- 4 When you put a book on a high shelf, "according to potential energy".

•

2 A) Write the scientific term:

- The energy stored inside an object. ()

B) Give a reason for:

- 1 The shockwave truck is faster than the normal truck.

•

- 2 Gills are very important organs for fish.

•

- 3 Glass is a transparent object.

•

- 4 A moving truck has more kinetic energy than a small moving car at the same speed.

•

3 A) Put (✓) or (X) in front of the following sentences:

- 1 Buttress roots grow directly downward to search for water deeply. ()

- 2 The direction of force is determined by the total force applied on an object. ()

B) State one function or use for each of the following:

- 1 The human nervous system.

•

2 Teeth.

•

3 Airbag.

•

4 **A) Choose the correct answer:**

1 When objects collide with each other, _____ is transferred between them.

- a) time b) distance c) energy d) nothing

2 The Egyptian jerboa is considered a

- a) reptile b) rodent c) bird d) lizard

B) Answer the following questions:

1 Compare between light falling on a shiny surface and light falling on a rough painted wall.

Light falling on a shiny surface

Light falling on a rough painted wall

2 What factors does gravitational potential energy depend on?

•

3 Give an example of a source of light.

•

1 A) Choose the correct answer:

- A moving object stops when an _____ force is applied in the direction.

- | | |
|-------------------|-----------------------|
| a) same - same | b) equal - opposite |
| c) greater - same | d) smaller - opposite |

B) Give a reason for each of the following:

- 1 Seat belts are very important in cars.

- _____
- _____

- 2 Cats can see in the dark.

- _____
- _____

- 3 Kapok trees are fixed firmly in soggy soil.

- _____

- 4 If you let a pen fall from your hand, it falls towards the ground.

- _____

2 A) Write the scientific term:

- Organisms that use their wings to emit flashes of light. (_____)

B) Answer the following questions:

- 1 What is the energy change that happens in a gas oven when you turn it on?

- _____

- 2 When is a body said to be in motion?

- _____

- 3 Mention how the Egyptian mongooses communicate with each other.

- _____

- 4 Blood vessels play an important role in the survival of penguins. **Explain.**

- _____
- _____

3 A) Put (✓) or (X) in front of the following sentences:

1 As the speed of a car increases, the amount of fuel consumed decreases. ()

2 Reaction time always takes more than one second. ()

B) Give one example for each of the following:

1 Safety equipment in cars:

•

2 A form of potential energy:

•

3 Organisms communicate with each other through the sense of smell:

•

4 A) Complete the following sentences:

1 When a book is moved from a higher to a lower shelf, its potential energy

.....

2 Amphibians breathe using and

B) What happens when?

1 Increasing the angle of inclination of a moving object. (Regarding the speed of the object)

•

2 People living in big cities are exposed to high levels of air pollution for long periods of time.

•

3 Predators are close to a group of fireflies.

•

1 A) Choose the correct answer:

- When the Panther Chameleon stands on tree leaves, the color of its scale's changes to

- | | |
|----------|----------|
| a) white | b) green |
| c) blue | d) Black |

B) Mention:

- 1 The property on which dolphins depend on to determine the location of objects under water.

•

- 2 The two types of forces that can change the motion of a body.

•

- 3 The difference between respiration in humans and respiration in fish.

•

- 4 The function of the three jet engines in the shockwave trucks.

•

2 A) Complete the following sentence:

- The force of collision between two balls increases when the mass of each ball

B) Answer the following questions:

- 1 What is the function of night vision goggles?

•

- 2 The bull sharks have less competition for finding food in fresh water. **Explain.**

•

- 3 When you sit on a chair without moving, what is the name of the force that pulls you downward?

•

- 4 Calculate the speed of a train that covers a distance of 400 kilometers in two hours.

•

3 A) Write the scientific term:

1 The main light source on the Earth's surface. ()

2 The ability to do work. ()

B) Give a reason for:

1 In Newton's cradle, energy loss occurs in the form of thermal energy.

• _____.

2 The Egyptian jerboa has long hind legs.

• _____.

3 The book on the table has an energy.

• _____.

4 A) Put (✓) or (X):

1 When a roller coaster moves up the ramp, its kinetic energy increases. ()

2 The songs of the humpback whales have different sound pitches depending on the season. ()

B) Define each of the following:

1 Adaptation.

• _____.

2 Reflection of light.

• _____.

3 Collision.

• _____.

1 A) Write the scientific term:

- A type of adaptation that helps the living organism to sneak up on preys.

(Camouflage)

B) Answer the following questions:

- 1 Mention structural adaptations in the Egyptian jerboa:
 - Large and sensitive ears, long hind legs, and hair on feet and toes.
- 2 How can we see objects?
 - a) Light falls on the object. b) Light reflects on our eyes.
 - c) Eyes transmit messages to the brain. d) The brain tells us what we see.
- 3 What type of adaptation is the polar bear's white, thick fur?
 - Structural adaptation.
- 4 Give an example for pushing and pulling force.
 - Pushing force: Kicking a ball Pulling force: Lifting up a bag

2 A) Complete the following sentence:

- The owl can detect the location of its prey by using its sharp senses like hearing and sight.

B) Answer the following questions:

- 1 Compare between the Sun and the Moon as sources of light.
 - The Sun is a light source, while the Moon is not considered a light source.
- 2 Give an example of the behavioral adaptation for one living organism.
 - Jerboa hops in zigzag patterns.
- 3 Explain the state of a body when it is affected by balanced and unbalanced forces.
 - When the body is affected by balanced forces, it won't move, but when it is affected by unbalanced forces, it will move.
- 4 What are the factors that depend on the speed of the moving objects?
 - Distance and time.

3 A) Choose the correct answer:

- 1 _____ energy is a visible form of energy that our eyes can detect.
 - a) Heat b) Sound
 - c) Light d) Electrical
- 2 By decreasing the number of fire extinguishers fixed on a cart, its speed _____.
 - a) becomes zero b) remains constant
 - c) decreases d) increases

B) Give a reason for:

- 1 It is always advisable to wear a seat belt while driving.
 - To keep the driver's body and the passengers from moving forward when the car stops suddenly.
- 2 Humpback whales sing in the winter.
 - To communicate with each other for mating.
- 3 The roller coaster doesn't need electricity when moving down the ramp.
 - Because its stored potential energy changes into kinetic energy, that helps it move downward.

4 A) Put (✓) or (X) in front of the following sentences:

- 1 Light and sound are common methods to communicate between humans and animals. (✓)
- 2 The nervous system works separately from the five senses. (X)

B) Define:

- 1 Digestion process
 - It is the process of breaking down food into smaller parts, so the body can use them to get energy and grow.
- 2 Opaque objects
 - They are objects that don't allow light to pass through.
- 3 Motion
 - It is any change in the position of an object relative to a fixed point.

1 A) Complete the following sentence:

- Animals that live in extreme cold weather habitat have **short** ears.

B) What happens if ...?

- Humans have large eyes with larger eye pupils.
 - Humans will be able to see in dim light.
- The panther chameleon has no V-shaped feet.
 - It can't hold the branches of trees.
- A suitable pushing force acts on a static object.
 - The object will move.
- A moving ball hits a tennis bat.
 - The kinetic energy of the moving ball transfers to the tennis bat.

2 A) Write the scientific term:

- The distance traveled during unit of time. (Speed)

B) Answer the following questions:

- What are the reasons for nocturnal animal activity?
 - The animals may live in an extremely hot place, so they prefer to look for food at night when the weather becomes cooler.
 - Some preys are only available at night.
 - Some animals depend on complete darkness to surprise their prey.
- Look at the following figures, then answer:



- If we push the given objects with the same force, which one of them will travel a greater distance?

- The bicycle.
- Mention** the characteristics that help penguins to stand barefoot on ice for a long time.
 - The blood vessels in their feet weave around each other.

- 4 Compare** between potential energy and kinetic energy according to their definitions.

Potential energy

It is the amount of energy that is stored in an object due to its position.

Kinetic energy

It is the energy produced from an object due to its motion.

3 A) Choose the correct answer:

- 1** When an acrobat player jumps down, his _____ increases.
a) speed b) height c) mass d) potential energy
- 2** The nerves of the _____ are connected directly to the brain.
a) ear b) skin c) eye d) nose

B) Give a reason for:

- 1** Your body needs energy.
• To perform all its vital activities.
- 2** The human body has a shadow.
• Because the human body is opaque and doesn't allow light to pass through.
- 3** You can hear a sound during collision between marbles.
• Because some of the kinetic energy changes into sound energy during collision.

4 A) Put (✓) or (X) in front of the following sentences:

- 1** Hunting at night for nocturnal animals is considered a behavioral adaptation. (✓)
- 2** When the air is released backward from the fire extinguishers fixed to a cart, the cart moves backward. (X)

B) What is the importance of...?

- 1** Friction
• It slows down or stops motion of moving objects.
- 2** Sensory receptors
• They are responsible for receiving information from the environment.
- 3** Saliva
• It moistens food and begins to break it down.

1 A) Complete the following sentence:

- Language and writing are examples of codes.

B) What happens ...?

- 1 If humans don't have small intestines.
 - Their digestive system cannot break down food into nutrients or absorb these nutrients.
- 2 When an unbalanced force acts on a static object.
 - The object will move in the direction of the greater force.
- 3 When dolphins do not have a super sense of hearing.
 - They cannot detect the echo reflected from their prey, so they cannot locate them.
- 4 When you put a book on a high shelf, "according to potential energy".
 - The potential energy stored in it increases.

2 A) Write the scientific term:

- The energy stored inside an object. (Potential energy)

B) Give a reason for:

- 1 The shockwave truck is faster than the normal truck.
 - Because the shockwave truck has three jet engines.
- 2 Gills are very important organs for fish.
 - Because they enable fish to extract oxygen gas from water for respiration.
- 3 Glass is a transparent object.
 - Because it allows most of light to pass through it.
- 4 A moving truck has more kinetic energy than a small moving car at the same speed.
 - Because the truck has a bigger mass than the small car.

3 A) Put (✓) or (X) in front of the following sentences:

- 1 Buttress roots grow directly downward to search for water deeply. (X)
- 2 The direction of force is determined by the total force applied on an object. (✓)

B) State one function or use for each of the following:

- 1 The human nervous system.
 - It gathers information through the sensory organs and tells the body what to do.

2 Teeth.

- They grind food during chewing.

3 Airbag.

- It slows the speed of the driver's motion forward, and absorbs the energy of the driver and passenger during a collision.

4 **A) Choose the correct answer:**

1 When objects collide with each other, _____ is transferred between them.

- a) time b) distance c) energy d) nothing

2 The Egyptian jerboa is considered a

- a) reptile b) rodent c) bird d) lizard

B) Answer the following questions:

1 Compare between light falling on a shiny surface and light falling on a rough painted wall.

Light falling on a shiny surface

The light rays are reflected in one direction.

Light falling on a rough painted wall

The light rays are scattered in different directions.

2 What factors does gravitational potential energy depend on?

- Mass and height.

3 Give an example of a source of light.

- A lamp.

1 A) Choose the correct answer:

- A moving object stops when an _____ force is applied in the direction.
 - a) same - same
 - b) equal - opposite
 - c) greater - same
 - d) smaller - opposite

B) Give a reason for each of the following:

- 1 Seat belts are very important in cars.
 - Because seat belts keep the driver and the passengers from moving forward when the car stops suddenly during a collision.
- 2 Cats can see in the dark.
 - Because they have a mirror-like membrane at the back of their eyes, allowing them to collect more available light.
- 3 Kapok trees are fixed firmly in soggy soil.
 - Because they have large, wide buttress roots that grow up on their trunks.
- 4 If you let a pen fall from your hand, it falls towards the ground.
 - Due to the pulling force of the gravity that pulls the pen down toward the Earth.

2 A) Write the scientific term:

- Organisms that use their wings to emit flashes of light. (Fireflies)

B) Answer the following questions:

- 1 What is the energy change that happens in a gas oven when you turn it on?
 - The chemical energy stored in natural gas changes into thermal energy.
- 2 When is a body said to be in motion?
 - When the body changes its position relative to a fixed starting point.
- 3 Mention how the Egyptian mongooses communicate with each other.
 - By producing sounds that seem like chatter.
- 4 Blood vessels play an important role in the survival of penguins. **Explain.**
 - Because they keep their toes from freezing, as the warm blood vessels heat the cold blood vessels.

3 A) Put (✓) or (X) in front of the following sentences:

1 As the speed of a car increases, the amount of fuel consumed decreases. (X)

2 Reaction time always takes more than one second. (X)

B) Give one example for each of the following:

1 Safety equipment in cars:

- Airbag.

2 A form of potential energy:

- Gravitational potential energy.

3 Organisms communicate with each other through the sense of smell:

- Ants.

4 A) Complete the following sentences:

1 When a book is moved from a higher to a lower shelf, its potential energy decreases.

2 Amphibians breathe using lung and skin.

B) What happens when?

1 Increasing the angle of inclination of a moving object. (Regarding the speed of the object)

- The speed of the object will increase.

2 People living in big cities are exposed to high levels of air pollution for long periods of time.

- They will suffer from asthma, lung damage, and heart problems.

3 Predators are close to a group of fireflies.

- They will make different flash patterns to warn other fireflies from predators.

1 A) Choose the correct answer:

- When the Panther Chameleon stands on tree leaves, the color of its scale's changes to _____.
 - a) white
 - b) green
 - c) blue
 - d) Black

B) Mention:

- 1 The property on which dolphins depend on to determine the location of objects under water.
 - Echolocation.
- 2 The two types of forces that can change the motion of a body.
 - The pushing and pulling forces.
- 3 The difference between respiration in humans and respiration in fish.
 - Humans have lungs to inhale oxygen gas from air, while fish have gills to inhale oxygen gas from water.
- 4 The function of the three jet engines in the shockwave trucks.
 - They make the shockwave trucks move about five times faster than the normal trucks.

2 A) Complete the following sentence:

- The force of collision between two balls increases when the mass of each ball increases.

B) Answer the following questions:

- 1 What is the function of night vision goggles?
 - They help human to see in the darkness.
- 2 The bull sharks have less competition for finding food in fresh water. **Explain.**
 - Because other types of sharks live in salt water only.
- 3 When you sit on a chair without moving, what is the name of the force that pulls you downward?
 - Gravity.
- 4 Calculate the speed of a train that covers a distance of 400 kilometers in two hours.
 - $\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{400}{2} = 200 \text{ km/hr.}$

3 A) Write the scientific term:

- 1 The main light source on the Earth's surface. (The sun)
- 2 The ability to do work. (Energy)

B) Give a reason for:

- 1 In Newton's cradle, energy loss occurs in the form of thermal energy.
 - Due to the friction between the string and the other parts of the cradle, and also, between the balls during collision.
- 2 The Egyptian jerboa has long hind legs.
 - To jump for long distances.
- 3 The book on the table has an energy.
 - Because the book on the table stores potential energy.

4 A) Put (✓) or (X):

- 1 When a roller coaster moves up the ramp, its kinetic energy increases. (X)
- 2 The songs of the humpback whales have different sound pitches depending on the season. (✓)

B) Define each of the following:

- 1 Adaptation.
 - It is the characteristic that helps living organisms to survive and reproduce in their ecosystem.
- 2 Reflection of light.
 - It is the bouncing of light rays when they fall on a reflecting surface.
- 3 Collision.
 - It is the crashing of two objects into each other.

حمل الان

مجانا وحصريا

امتحانات رقم (4)

الترم الاول





Model (2)

Q1. A- Put (x) or (✓):

- 1-force is necessary to move or stop an object (.....)
- 2-the angel of the incline affects the speed of an object moving on it (.....)
- 3-the speed of the ball moving down change by changing the ramp height (.....)
- 4-all objects move at similar speed around us (.....)

B- Give reason gills are a unique structural adaptation in fish

Q2.correct the underlined word:

- 1-The moving balls of newton's cradle keeps their kinetic energy as time passes (.....)
- 2-When object move in a high speed it has a small amount of kinetic energy _ (.....)
- 3-The larger density of an object the more fuel it consumes (.....)
- 4-The speed of an object affects its potential energy (.....)
- 5-Airbags are made of thick wooden materials (.....)

Q3-A- choose the correct answer:

1-bull shark can live in.....

- a) fresh water b) salty water c) both fresh and salty water

2-fennec fox hascolor fur

- a) white b) black c) sandy

3-panther chameleon hasfeet

- a) flat b) U-shaped c) V-shaped

4-fennec foxlike dogs

- a) white b) eat c) pants

5-All the following are organs of digestive system except.

- a) Mouth b) nose c) stomach

Q3-B- What happen if :

- firefly wants to attract a mate to reproduce.

Model (3)

Q1) Complete

- 1-The speed of a roller coaster starts to move it gets energy from.....electric motors.....found in its beginning car which is operated by.....
- 2-If you have ability to push a chair, so you have.....
- 3-Any object will move, if it has energy
- 4-in gas oven, energy changes into energy

B-Mention the changes of energy when a skater begins to skate.

Q2)A- Cross out the odd word

- 1-Guitar- flashlight - radio - alarm bell
- 2-The sun - electric heater -match- radio
- 3-Electric mixer - electric fan -washing machine -alarm bell
- 4- Nose – mouth – small intestine – stomach

B-Give reason

- 1-Fuel Inside the car is similar to the food inside the human body

.....

- 2- The toy car moves after filling its spring, then let it to free.

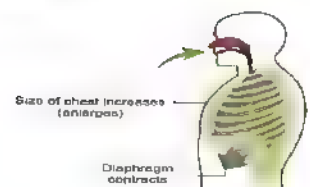
.....

Q3)-Put (true) or (false)

- 1- All types of sharks live in fresh water (....)
- 2- Radio is operated by sound energy, and produces electric energy (.....)
- 3- When a moving object is affected by two opposite equal forces it will stop(.....)
- 4- We eat food to obtain electric energy (.....)
- 5- Energy don't transfer from an object to another (.....)

B- From the opposite fig. answer the following questions

- 1- The figure refers toprocess
- 2- The diaphragm muscle willduring this process



Q1-choose the correct answer

1- A very big truck needs to move

- A-very small engine b) small engine c) very big engine d)no engine

2-both of human and fish...

- A) Can breathe in air b) Can breathe in water c) Use oxygen gas to breathe d) Use carbon dioxide to breathe

3-Gills differs from lungs, in that gills.....

- A) Take oxygen gas b) Expel carbon dioxide gas c) Extract oxygen from water d) Extract oxygen from air

4-reading and writing are common types of communication in

- A) human b) plants c) animals d) birds

5. Which of the following choices explain how the body reacts to the smell of food in the correct order?

- a. The brain the nose the nerves b. The nose the brain - the nerves
c. The nerves the brain the nose d. The nose the nerves the brain

6. The organ that processes the information collected through the sense of sight is

- a. The spinal cord b. The nerves C. The brain d. The eyes

Q2)A- Complete the following:

1. Some animals go out at night in their habitats to

2.is a sensory organ.

3. Thetransmit Information's from and to the brain.

4. to measure the speed of a moving car we need to divide theit travels over. ...Taken

B- Give reason

1- The blood vessels in penguin feet wave around each other

Q3)A- put (true)or(false)

1- To slow down the speed of the shockwave truck quickly, parachutes are used (.....)

2- Speaking is the only way of communication between people (.....)

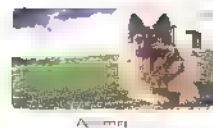
3-The main difference between pulling and pushing forces in the direction of the force (...)

4-To open or close a door, we have to push or pull it (.....)

B-Look at the following photos, then complete:

1. The sharpest senses that animal (1) has are ...

3. The sharpest sense that animal (2) has is



Model (5)

Q1)-Complete

- 1-The bicycle cannot move without aacting on it
- 2-from the plants that can survive in habitats that have shortage of water
- 3- The wall of the small intestine absorbs the digested food into your bloodstream through
- 4-The chair stands on the floor due to the pulling force of
- 5-To move anything from one place to another, you need to it or.....

Q2)-Correct the underlined words

- 1-When you jump up, the force of friction pulls you back to the ground
- 2-If the car runs out of fuel, Its speed increases
- 3-The motion of a car is opposed by the gravity of air
- 4-Moving object stops when a force of the same amount is applied to it in the same direction

B:1-Look at the path of the light rays in pictures (A) - (B). Determine which of the two objects is opaque and which is transparent

(object) (A)..... (object) (B).....



Q3-choose the correct answer: -

- 1-by increasing speed of a ball travelling down ward its kinetic energy ...
a)increase b)decrease c)doesn't change d)become zero
- 2-a moving car travels a 100 meter distance in 5 seconds so its speed will be
a)10 m/sec b)15 m/sec c)20 m/sec d)5m/sec
3. To describe the delicious taste of a pedal of chocolate, we should use the sense of
a. Sight b. Smell c. Taste d. Touch
4. To describe the color of your school bag to your friend you should use the sense of
a. Sight b. Smell c. Taste d. Touch
5. Which of the following senses we use during watching a film on the TV?
a. Sight and taste b. Sight and smell c. Hearing and touch d. Sight and hearing
- 6-preessing the gas pedal of a car sends moreto the engine
a)air b)fuel c)water d) Juice

B - Explain why :

-Leaves of plants that float above the surface of the water are so wide.

Q1:- Choose the correct Answer

1. To know if a cup of water is hot or cold, we need to use the sense of

- a. Sight b. Smell c. Hearing d. Touch

2. Some animals go out at night in their habitats to

- a. Search for air b. Search for predator c. Search for a prey d. Sleep In the open air

3. All of the following are sensory organs except the

- a. Eyes b. Nose c. Skin d. Lungs

4. The nerves transmit Information's from and to the brain in the form of

- a. Magnetic Impulse b. Electrical Impulse c. Light Impulse d. Sound Impulse

Q 2) Write the scientific term of each of the following

1- A reptile that can sense the body heat of its preys at night using a special part of its face (.....)

2-A property by which a bat can locate its prey Insects through the sounds reflected from them (.....)

3-An animal that can turn its head backwards and has a bowl-shaped face and large eyes (.....)

4-A system that controls all the body functions and nerves are one of its parts(.....)

Q3)-Complete

1- when you push a table on the floor thetransfer from your body to table

2- When two cars move on the same road car (A) its speed 10 m/s while car (B) its speed 30 m/s , this means that carmove longer distance than carat same time

3- When you kick the ball standing in land, it starts to

4-objects allow light rays to pass through them

5- The fishing cat can hunt at night depending on the sense ofwhile snake can hunt at night depending on its ability to sensewhich comes out from itsbody

Model (7)

Q 1) Put (x) or (√)

1. The sensory receptors in the eyes receive the sounds produced by a radio and send it to the brain ()
2. Animals that are active during the daytime are called the nocturnal animals ()
3. Some animals prefers hunting during the night that can hunting during the day ()

B) What is structural adaption of Jerboa?

.....

Q2.complete the following:

- 1- To describe the delicious piece of chocolate, we should use the sense of.....
- 2-the speed of a car on a highway isof the car in a traffic jam
- 3-If a truck moves in a high speed so it has more.....energy.
- 4-when objects collide with each other..... Is transferred between them

Q3) Answer the following questions :

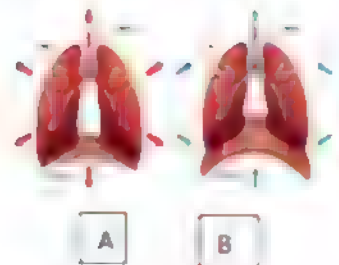
- 1- Which of the following surfaces represents the reflection of light rays from a wooden spoon - and what is the reason?



- 2- look at the following two figures. Identify the name of each of the two processes in Figures

A-

B-

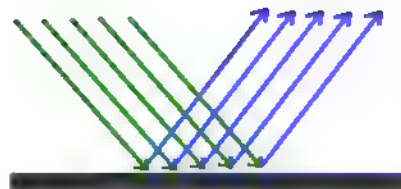


Model (8)

Q 1) Put (x) or (✓)

- 1-The body senses and system work separately when animals run away from their enemies(...)
- 2-The Egyptian jerboa lves in forests. (.....)
- 3-A jerboa has large ears which help in sensing the snakes. (.....)
- 4-The Egyptian jerboa can jump for long distances depending on its long hind legs. (.....)
- 5-Hopping of the jerboa in zigzag pattern to run away from danger is considered as a structural(.....)
- 6-Amphibians includes frog, starred agama and salamanders (.....)
- 7-Arctic foxes and amphibians cannot found in the same habitat (.....)
- 8-Frogs have a small digestive system as they are small reptiles (.....)
- 9-Clean water and air are very important for digestion process in amphibians (.....)
- 10-seatbelt enable driver to see the road
- 11-fast moving objects can be exposed to less damage than slow ones (.....)
- 12-a small object on a low speed has a big amount of kinetic energy (.....)
- 13-when the mass of object increase in need less force to move (.....)
- 14--slower and smaller objects have more kinetic energy than that of larger faster (.....)

Q2) What is the type of reflection? Why?



Q3)-Correct the underlined words

- 1-When you jump up, the force of friction pulls you back to the ground (.....)
- 2-If the car runs out of fuel, Its speed increases (.....)
- 3-The motion of a car is opposed by the gravity of air(.....)
- 4-Moving object stops when a force of the same amount is applied to it in the same direction (....)
- 5-The rope in the tug-of-war game may not move towards any team, if both teams push with the same force (.....)

Model (1)

Q1.Choose the correct answer:

1-All of the following living organisms have mirror like membrane except.....

- a) snakes b) fishing cats
c) Dogs d) horses

2-The sensory organ of the dolphin helps it do all the following, except ...

- a. Surviving b. Searching for food c. Searching for water d. Protecting itself under water

3-Human activities and bad habits, can pollute.....of an ecosystem

- A-Air and soil only
C-air and waterways only

4-The force that is exerted when objects rub against each other

- a)weight b)gravitational c)friction d)pressure

B-What is the type of adaptation in panther chameleon eyes?

structural adaptation

Q2-put (true) or (false)

1-Digestive system ends by anus

(1)

2-the ears of arctic fox are longer than those of fennec fox

()

3-The food gets broken down into nutrients in the small intestine

(1)

4-stomach connects esophagus with large intestine

()

5-food passes from mouth to stomach through a narrow tube known as small intestine (..)

()

Q3.write the scientific term:

1-they are in the car airbags and allow them to deflate fast after collision

(holes.)

2- liquid used to move cars as it store chemical energy

(FUEL)

3-a process where two objects or more crash in each other and energy transfer happen

(COLLISION)

4-a heavy steel ball swings on a cable and destruct buildings

(wrecking ball)

5-safety equipment in cars prevent passengers from moving forward when car stop suddenly

(Seat belt)

Q3.B-Cross the odd word :

- Penguin – Polar bear – snake – arctic fox
- Sound energy – light energy – thermal energy – chemical energy

Model (2)

Q1. Put (x) or (✓):

- 1-force is necessary to move or stop an object(✓.)
- 2-the angel of the incline affects the speed of an object moving on it (✓.)
- 3-the speed of the ball moving down change by changing the ramp height(✓.....)
- 4-all objects move at similar speed around us (x)

B- Give reason because it allows fish to live and breath under water

Q2.correct the underlined word:

- 1-the moving balls of newton's cradle keeps their kinetic energy as time passes(**mechanical**)
- 2-when object move in a high speed it has a small amount of kinetic energy (**P.E**)
- 3-the larger density of an object the more fuel it consumes (**mass - speed**)
- 4-the speed of an object affects its potential energy (**K.E**)
- 5-airbags are made of thick wooden materials (**THIN NYLON**)

Q3-choose the correct answer:

1-bull shark can live in.....

- a)fresh water b)salty water c)both fresh and salty water

2-fennec fox hascolor fur

- a)white b)black c)sandy

3-panther chameleon hasfeet

- a)flat b)U-shaped c)V-shaped

4-fennec foxlike dogs

- a)white b) eat c) pants

5-All the following are organs of digestive system except.

- a) Mouth b) nose c) stomach

Q3-B- What happen

- firefly wants to attract a mate to reproduce.

They use their wings to form different flash pattern



Mr.Science
Sherif Hawary

Model (3)

Q1)A- Complete

- 1-The speed of a roller coaster starts to move, it gets energy from. **Motors.....**found in its beginning car which is operated by**ELECTRICITY**
 - 2-If you have ability to push a chair, so you have **Energy**
 - 3-Any object will move, if it has **.kinetic** energy
 - 4-in gas oven, **chemical** energy changes into **heat** energy
- B--**When a skater begins to skate, his stored P.E changes into K.E energy

Q2) Cross out the odd word

- 1-Guitar - **flashlight** - radio - alarm bell
- 2-The sun-electric heater-match-**radio**
- 3-Electric mixer- electric fan - washing machine-**alarm bell**
- 4- **Nose** - mouth - small intestine - stomach

Give reason

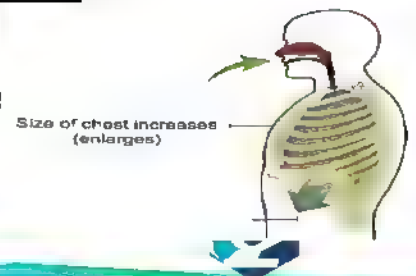
- 1-Fuel Inside the car is similar to the food inside the human body
BEC. Both of them burn produces heat and kinetic energy
- 2- The toy car moves after filling its spring, then let it to free.
BEC. Potential energy stored change into kinetic energy

Q3)-Put (true) or (false)

- 1- All types of sharks live in fresh water (**F**)
- 2- Radio is operated by sound energy, and produces electric energy (**F**)
- 3- When a moving object is affected by two opposite equal forces it will stop(...**T..**)
- 4- We eat food to obtain electric energy (**F**)
- 5- Energy don't transfer from an object to another (**F**)

B- From the opposite fig. answer the following questions

- 1- The figure refers to **Inhalation** process
- 2- The diaphragm muscle will **Contract** during this proces:



Model (4)

Q1-choose the correct answer

1- A very big truck needs to move

- A-very small engine b) small engine c) **very big engine** d)no engine

2-both of human and fish...

- A) Can breathe in air b) Can breathe in water c) **Use oxygen gas in breathe** d) Use carbon dioxide to breathe

3-Gills differs from lungs, in that gills.....

- A) Take in oxygen b) Expel out carbon dioxide gas c) **Extract oxygen from water** d) Extract oxygen from air

4-reading and writing are common types of communication in

- A) **human** b) plants c) animals d) birds

5. Which of the following choices explain how the body reacts to the smell of food in the correct order?

- a. The brain the nose the nerves b. The nose the brain - the nerves
c. The nerves the brain the nose d. **The nose the nerves the brain**

6. The organ that processes the information collected through the sense of sight is

- a. The spinal cord b. The nerves c. **The brain** d. The eyes

Q2) Complete the following:

1. Some animals go out at night in their habitats to **catch preys**
2. **nose** is a sensory organ.
3. The **nerves** transmit Information's from and to the brain.
4. to **measure** the speed of the moving car we need to divide the **Distance** it travels over the **time**.... Taken

B- Give reason

-To warm each other for keeping its toes from freezing

Q3) put (true)or(false)

- 1- To slow down the speed of the **shockwave truck** quickly, parachutes are used (**..T..**)
- 2-Speaking is the only way of communication between people (**F..**)
- 3-The main difference between pulling and pushing forces in the direction of the force (**.T**)
- 5-To open or close a door, we have to push or pull it (**...T..**)

B-Look at the following photos, then complete:

1. **Smell and hearing**
2. **hearing**



Animal (1)



Animal (2)

Model (5)

Q1)-Complete

- 1-The bicycle cannot move without a **Force**. Acting on it
- 2- **Acacia** from the plants that can survive in habitats that have lackage of water
- 3- **Tiny blood vessels**
- 4-The chair stands on the floor due to the pulling force of **.gravity**
- 5-To move anything from one place to another, you need to **push** it or. **Pulling**

Q2)-A - Correct the underlined words

- 1-When you jump up, the force of friction pulls you back to the ground (**gravity**)
- 2-If the car runs out of fuel, Its speed increases (**decrease**)
- 3-The motion of a car is opposed by the gravity of air (**friction**)
- 4-Moving object stops when a force of the same amount is applied to it in the **same** direction (**opposite**)

B - Look at the path of the light rays in pictures (A) - (B). Determine which of the two objects is opaque and which is transparent

(object) (A). **is opaque**

(object) (B) is **transparent**



Q3-choose the correct answer:-

1-by increasing speed of a ball travelling down ward its kinetic energy ...

- a)increase b)decrease c)doesn't change d)become zero

2-a moving car travels a 100 meter distance in 5 seconds so its speed will be

- a)10 m/sec b)15 m/sec c)20 m/sec d)5m/sec

3. To describe the delicious taste of a pedal of chocolate, we should use the sense of

- a. Sight b. Smell c. Taste d. Touch

4. To describe the color of your school bag to your friend you should use the sense of

- a. Sight b. Smell c. Taste d. Touch

5. Which of the following senses we use during watching a film on the TV?

- a. Sight and taste b. Sight and smell c. Hearing and touch d. Sight and hearing

6-preessing the gas pedal of a car sends moreto the engine

- a)air b)fuel c)water d) Juice

B - Explain why :

-Leaves of plants that float above the surface of the water are so wide.

To absorb large amount of sun light

Model (6)

Q1:- Choose the correct Answer

1. To know if a cup of water is hot or cold, we need to use the sense of

- a. Sight b. Smell c. Hearing d. **Touch**

2. Some animals go out at night in their habitats to

- a. Search for air b. Search for predator c. **Search for a prey** d. Sleep In the open air

3. All of the following are sensory organs except the

- a. Eyes b. Nose c. Skin d. **Lungs**

4. The nerves transmit Information's from and to the brain in the form of

- a. Magnetic Impulse b. **Electrical Impulse** c. Light Impulse d. Sound Impulse

Q 2) Write the scientific term of each of the following

1- A reptile that can sense the body heat of its preys at night using a special part of its face (**snake..**)

2-A property by which a bat can locate its prey Insects through the sounds reflected from them (**echolocation**)

3-An animal that can turn its head backwards and has a bowl-shaped face and large eyes (**owl**)

4-A system that controls all the body functions (**nervous system**)

Q3)-Complete

1-when you push a table on the floor the **energy** transfer from your body to table

2- When two cars move on the same road car (A) its speed 10 m/s while car (B) its speed 30 m/s , this means that car **B..**move longer distance than car **A** at same time

3- When you kick the ball standing in land, it starts to **Move**

4- **Transparent** objects allow light rays to pass through them

5- The fishing cat can hunt at night depending on the sense of **sight**.while snake can hunt at night depending on its ability to sense **heat**.which comes out from its **prey** body

Model (7)

Q 1) Put (x) or (✓)

1. The sensory receptors in the eyes receive the sounds produced by a radio and send it to the brain(**x**)
2. Animals that are active during the daytime are called the nocturnal animals (**x**)
3. Some animals prefers hunting during the night that cannot hunting during day (**✓**)

B) What is structural adaption of Jerboa?

It has large ears to listen predator

It has long hind legs to can jump long distance



Mr.Science
Sherif Hawary

Q2.complete the following:

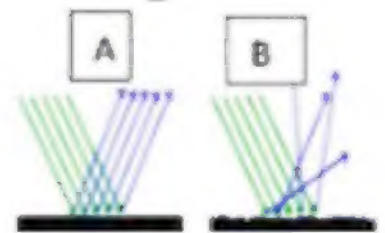
- 1- To describe the delicious piece of chocolate, we should use the sense of **taste**
- 2-the speed of a car on a high way is **.more than ..** the car in a traffic jam
- 3-If a truck moves in a high speed so it has more **Kinetic** energy.
- 4-when objects collide with each other **energy** Is transferred between them

Q3) Answer the following questions :

- 1- Which of the following surfaces represents the reflection of light rays from a wooden spoon - and what is the reason?

A- Regular reflection

B- Irregular reflection

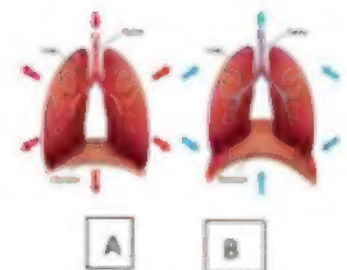


- 2- look at the following two figures. Identify the name of each of the two processes in Figures

A- inhalation

B- exhalation

C-



Model (8)

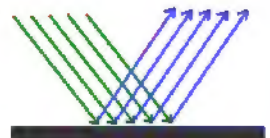
Q 1) Put (x) or (√)

- 1-The body senses and system work separately when animals run away from their enemies(x)
- 2-The Egyptian jerboa lives in forests. (x)
- 3-A jerboa has large ears which help in sensing the snakes. (√)
- 4-The Egyptian jerboa can jump for long distances depending on its long hind legs. (√)
- 5-Hopping of the jerboa in zigzag pattern to run away from danger is considered as a structural(x)
- 6-Amphibians includes frog, starry agama and salamanders (√)
- 7-Arctic foxes and amphibians cannot found in the same habitat (√)
- 8-Frogs have a small digestive system as they are small reptiles (x)
- 9-Clean water and air are very important for digestion process in amphibians (√)
- 10-seatbelt enable driver to see the road (x)
- 11-fast moving objects can be exposed to less damage than slow ones (x)
- 12-a small object on a low speed has a big amount of kinetic energy (x)
- 13-when the mass of object increase in need less force to move (x)
- 14--slower and smaller objects have more kinetic energy than that of larger faster (x)



Q2) What is the type of reflection? Why?

Regular reflection – because light rays are reflected in one direction from smooth surface



Q3)-Correct the underlined words

- 1-When you jump up, the force of friction pulls you back to the ground (**gravity**)
- 2-If the car runs out of fuel, Its speed increases (**decrease**)
- 3-The motion of a car is opposed by the gravity of air (**friction**)
- 4-Moving object stops when a force of the same amount is applied to it in the same direction (**opposite**)
- 5-The rope in the tug-of-war game may not move towards any team, if both teams push with the same force (**pull**)

كيفية طباعة صفحات معينة من ملف معين

مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9

